



OLED'S DARK STAR!

Panasonic EZ952 flies the flag for Ultra HD Blu-ray



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Welcome

Meghan Trainor had a memorable/annoying (delete as appropriate) pop hit in 2014, with a chorus lyric of 'I'm all about that bass, 'bout that bass, no treble.' That doesn't exactly describe me – I still haven't lost



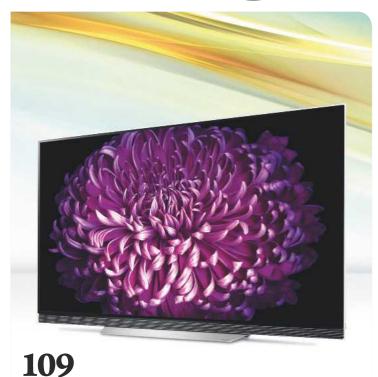
all my high-frequency hearing – but I've been known to spend longer stroking my subwoofer than any of my other speakers.

Tight, deep, fast, rich, warm bass is what all home cinema owners desire to bolster their movie enjoyment, as LFE is a vitally important part of any soundmix whether it's conveying the might of a dinosaur footstep or the sharp pain of a thrown fist. A new high-performance B&W subwoofer (the DB1D, reviewed exclusively on p44) is therefore something to cheer. Of course, we appreciate that £3,750 is more than you might seek to spend on a mere fraction of a speaker setup, which is why we're auditioning REL's £850 T7i subwoofer too. Actually, we tested two of them. Maybe we are all about that bass...

> Mark Craven Editor



MENU



07





CONTRIBUTORS



John Archer: The UK's most experienced TV tester cut his teeth as an early HCC staffer



Jon Thompson: Film producer and post-production expert delves deep into Hollywood and AV



Steve May: HCC's former Editor-in-Chief is one of the UK's most respected AV journos



Martin Pipe: Technical expert Martin is renown throughout the home cinema industry



Richard Stevenson: Industry veteran and former Editor of UK CE trade journal ERT



Danny Phillips: A former editor of What Video magazine, now a certified home cinema audio buff

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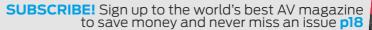
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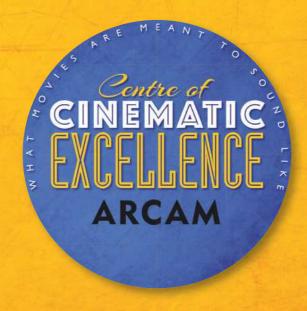
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BULLETIN

→ NEWS HIGHLIGHTS WHARFEDALE Diamond speaker range taken up to 11 CAMBRIDGE AUDIO Debut 4K deck features Dolby Vision BLACKFIRE Revamping Wi-Fi for the UHD generation WEBWATCH Click here for trailers and tech NEWS X10 The hottest news in bitesized chunks WONDER WOMAN Gal Gadot stops bullets cold, makes the Axis fold in 4K & MORE!



Sky has joined forces with audio guru Devialet to create the Sky Soundbox, a single-enclosure sonic solution (neither soundbar nor soundbase) to partner your TV and movie viewing. Within the sealed cabinet sit six woofers and a trio of full-range drivers, plus Devialet-delivered real-time signal processing, which extends to exclusive sound modes automatically tailored to content when paired with a Sky Q box. Inputs are HDMI, Bluetooth and digital optical. Pricing is £800 for non-Sky customers; those with a satellite subscription can enjoy a hefty saving.

HCC ONLINE...

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Cinema sound in XTZ



Swedish speaker corp XTZ is adding to its Cinema Series with two new models, the £1,350 M8 Tower (left) and £1,100 M8 LCR, which promise to outperform the existing M6 enclosures. Both are threeway designs, using dual 8in bass drivers, plus a six-pack of 1.2in soft dome units, five

combining for mid-range and one crossed over for high frequencies. 'The result is a high-power yet detailed speaker capable of expressing true emotions and the depth of the abyss,' boasts the brand. www.epichomecinema.co.uk

Third time's a charm for Ruark



Ruark has revamped its R7 'radiogram' speaker/CD player/ radio/piece of furniture for a

MkIII iteration that pimps the design, revises internal circuitry and adds new features including Spotify integration and multiroom support with other Ruark products. The basic specifications remains the same, however, meaning the £2,000 ticket gets you a 2.1 driver array, 160W onboard amp, Bluetooth/Wi-Fi streaming, digital and analogue inputs and the option of a TV mount. www.ruarkaudio.com

Playlist....

Team *HCC* spins up its disc picks of the month

The Fate of the Furious (Ultra HD BD)

The latest Fast & Furious sequel has already raced onto UHD BD in the US and nabbed pole position in our 4K disc library with its colour-rich HDR visuals and expansive DTS:X sonics.

American Gods: Complete Season One (Region B BD)



This audacious adaptation of Neil Gaiman's acclaimed novel dazzles on Blu-ray. Roll on Season Two...

Electric Dreams (Region B BD)



Probably the most '80s movie ever made, with a pop-tastic LPCM 2.0 stereo soundtrack to die for.

Future Shock (Region B BD)



Better late than never, this brilliant 2000AD documentary finally goes HD on a disc loaded with extras.

Le Trou (Region B BD



Jacques Becker's gripping 1960 crime drama escapes onto Blu-ray with a brand-new 4K restoration.

Building better Wi-Fi?

Blackfire tech aims to make buffering and dropouts a thing of the past

It already delivers multichannel sound and switches all your AV sources, but could the humble AV receiver be the backbone of your home Wi-Fi network too? According to Blackfire Research, that's exactly what's on the cards.

The company is perhaps most famous for FireConnect, a multiroom Wi-Fi platform, adopted primarily by Onkyo and Pioneer for its AV receivers. But a radical evolution, known as Blackfire RED (Real-time Entertainment Distribution), may do more to capture the imagination. Rolling out this year, it's designed to end the misery of buffering and signal dropouts for streamed media.

Connected *HCC* readers will know just how frustrating it can be to use a standard home Wi-Fi to listen to Spotify or hi-res audio files stored on a PC or NAS drive, let alone stream 4K video. Blackfire RED uses a new communications protocol designed specifically for CE devices to provide a more stable link between compatible AV hardware.

Using low-latency technology, it should enable users with multiple connected devices to stream content, including 5.1 audio and 4K video with zero signal loss. Harman/Kardon, Onkyo, Pioneer and Integra have all reportedly licensed the Blackfire

RED framework, with the first products expected late 2017.



Ravi Rajapakse: 'We want to rescue consumers from islands of incompatible media devices'

Blackfire founder and CEO Ravi Rajapakse told *HCC* that we're witnessing the start of a new era in smart home entertainment, where

smart TVs and smart audio systems are an integral part of the connected lifestyle. 'We want to rescue consumers from islands of incompatible media devices,' he says, 'and finally allow users to enjoy all of their digital content wirelessly.'

Blackfire RED effectively replaces conventional wireless protocols like TCP/IP, with an entirely new communication infrastructure. Not only can it handle high-data traffic, it also combats signal loss due to weak reception or noisy wireless environments. The catch is that it needs to be in multiple devices to work its magic.

Always-on internet is already an essential household utility, insists Rajapakse, and smarter home entertainment platforms such as Alexa are driving the need. 'The connected home has become a commercial proxy-war between Apple, Google, Amazon and Microsoft. But whichever cloud Al platform the consumer eventually uses, the bottleneck is still in the home Wi-Fi.'

RED is the first entertainment-centric software

framework built to overcome
the limitations of Wi-Fi for media
applications. Its arrival is a gamechanger, says Rajapakse. 'Blackfire RED
can provide an immersive experience
without all the speaker wires or
proprietary, limited connectivity to
media. It's no longer enough to just offer
Wi-Fi connectivity on consumer kit.'

Pioneer has licensed Blackfire's RED tech



At the 'plex....

Heading out to see a flick? Catch these this month

It



Sept 07: Bill Skarsgård steps into the oversized shoes and red nose of malevolent clown Pennywise for this first instalment in a twopart adaptation of Stephen King's epic 1986 horror novel.

Close Encounters of the Third Kind: Director's Cut



Sept 15: Prior to making its debut on Ultra HD Blu-ray, the new 4K restoration of Steven Spielberg's classic film will be playing selected UK cinemas – and there's nothing quite like a close encounter with this film on the bigscreen.

Kingsman: The Golden Circle

Sept 20: Taron Egerton, Colin Firth and director Matthew Vaughn return for this explosive sequel that sees the two Kingsmen agents teaming up with their US counterparts, the Statesmen.

Atmos direct to your ears

Plantronics partners with Dolby Atmos for gaming headphones

Headphone specialist Plantronics has teamed up with Dolby to promote a new range of gaming headphones designed for Dolby Atmos. The brand, which has made big in-roads into the enthusiast gaming market, will introduce the RIG 400LX, RIG 600LX and wireless RIG 800LX models this September.

All three will come bundled with a voucher code to activate the Dolby Atmos for Headphones app, at no additional cost, on an Xbox One or Windows 10 PC. The app normally requires a \$15 (or thereabouts) fee.

Dolby's Atmos headphone algorithm creates a convincing 3D sense of immersion from regular stereo headphones (no special hardware is required). For gamers, the ability to spatially place objects 'in the round', is said to significantly increase their performance. Atmos-enabled headphones can also be used with Netflix streams of Atmos content.

Sci-fi sonics

HCC took a test drive of the 400LX (pictured) and was astonished at the quality of the image placement created by an Atmos-encoded clip from

Star Wars: Battlefront. X-Wings were all around us, while the 40mm drivers kept details crisp yet delivered a pleasing level of bass.

The incoming RIG 400LX, RIG 600LX and wireless RIG 800LX 'phones also boast lightweight construction (important for prolonged gaming sessions) and sound-isolating earcups.

The RIG 800LX wireless model comes with a claimed 24-hour battery life. Voice feedback lets users monitor outgoing chat levels and quality, while earcupmounted dials adjust the balance between game and chat audio, as well as master volume.

Both the RIG 600LX and RIG 400LX ship with an amplifier with three audio EQ modes, dual analogue control wheels for game/chat balance and an aux input for music.

The RIG 400LX, 600LX and wireless 800LX headsets for the Xbox One family of devices and Windows 10 will be priced £90,

£120 and £140 respectively. They will also be joined by Dolby Atmos-branded RIG 400 and RIG 600 'phones for PC gamers (which lack the headphone amp), aggressively priced at £55 and £80.

Sky scores with Atmos

More Atmos news comes from satcaster Sky, which has rolled out next-gen audio mixes for its 2017/2018 season Premier League football coverage.

Atmos mixes are available to Sky Q customers with Ultra HD on the company's 124 Premier League broadcasts. There's no confirmation yet on other content getting an Atmos upgrade.

The soundmixes are offered via the 2TB Sky Q Silver PVR, and bitstream over HDMI via a Dolby Digital Plus codec. Those interested must change the Digital Audio Output setting on their Q box to 'Dolby Digital Plus'.

Sky Q owners can now enjoy 4K Premier League football with Atmos



Rotel RAP-1580 targets high-end setups

Range-topping AV heavyweight promises serious power

Rotel has launched a new flagship amplifier/ processor that embraces 3D audio formats and 4K HDR sources. Named the RAP-1580, it should have hit AV dealers now priced at £3,400.

A seven-channel design but with processing capability for 7.1.4 Dolby Atmos/DTS:X, the RAP-1580 claims a continuous power output of 100W across all channels (20Hz-20kHz, 8 Ohm, less than 0.05% THD), achieved via a dual differential input stage design and custom toroidal transformer. Wolfson DACs, Texas Instruments DSPs and in-house tuning combine to deliver 'vivid, detailed and accurate' sonics, we're told.

HDMI connectivity runs to eight inputs and two outputs. The latter, plus three of the inputs, support HDCP 2.2-flagged content and HDR

passthrough. Additional hookups include balanced XLR stereo audio, MM phono stage, multichannel analogue audio and Bluetooth. Calibration is handled by a 10-channel parametric EQ suite. www.rotel.com

The RAP-1580's 7in TFT display offers full control over AV tweaks – making it ideal for rack-mounting







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Best Product 2017-2018

BEST BUY OLED TV

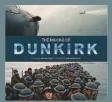
Philips 55POS9002



Extras...

Small items that could make a big impression...

The Making of Dunkirk



From the issues of shooting with IMAX cameras to crafting the film's

intricate structure in the edit suite, this in-depth account of the making of Christopher Nolan's World War II blockbuster is a mustread for anybody with even a passing interest in the filmmaking process. As usual, Titan Books has packed its gorgeous £35 hardback with a plethora of rare behind-the-scenes photographs and storyboards.

Star Wars: The Visual Encyclopedia



Clocking in at 200 pages and featuring illustrated entries on over 3,000 characters

droids, weapons and planets pulled from the live-action films (up to *Rogue One*) and animated spin-offs, DK's £25 hardback is the ultimate guide to all things *Star Wars*. If you really need to know the difference between a Rathtar, a Sarlac, a Blixus and a Vixus, this is the book for you!

Rick and Morty: Official Colouring Book



alongside cult cartoon Rick and Morty's

awaited third season (available on Netflix on this side of the Atlantic), this official tie-in lets fans crack out the crayons and try their hand at colouring characters and scenes from the show's first two sidesplitting seasons, from Scary Terry to Cronenberg World. Yours for just £11 (crayons not included...).



UK brand debuts 4K deck

Cambridge Audio's premium player drops DACs, embraces Dolby Vision

Cambridge Audio has entered the Ultra HD Blu-ray arena with a debut 4K player that slots into its range of CX-branded disc-spinners, amplifiers, network players and AV receivers. The CXUHD will sell via Richer Sounds stores and Cambridge Audio's website for £700, and is expected to hits shelves this month.

Unusually for Cambridge Audio hardware, and a sign of the changing nature of home cinema, the CXUHD features no analogue audio outputs, and no internal DACs. This is despite the player being a universal design, offering playback of DVD-Audio and SACD platters.

The reasoning is two-fold. Firstly, 'many amplifiers and AV receivers now feature their own DACs,' says the company – and home cinema owners are very likely to have their player set to bitstream output (the CXUHD naturally supports Dolby Atmos and DTS:X). Secondly, by removing DACs and associated circuitry, there's less signal interference, leading to significant noise reduction and 'improving both audio and picture quality.'

Owners of compatible TVs will note the CXUHD's support for Dolby Vision HDR. This is joined by playback of 4K media files, streamed via Wi-Fi and Ethernet from networked gear/servers, or from the deck's USB inputs. On the audio side, FLAC, WAV, WMA, Ogg Vorbis, AAC and MP3 compatibility is offered, up to 192kHz/24-bit, as well as multichannel DSD.

In addition to losing its Wolfson DACs, the CXUHD isn't a straight update of the previous CXU Blu-ray player, which launched in 2015. Also missing from the spec sheet is Darbee video processing and onboard audio upsampling from all inputs to 192kHz/24-bit.

Connectivity on the player includes dual HDMI outputs (one v2.0, one v1.4) and an HDMI input



(v2.0) to allow for connection of external sources. Cambridge Audio suggests using the latter for a Chromecast, Amazon Fire or Apple TV, bringing video-on-demand apps to the party. The deck also offers RS232 and 12V trigger connections for system integration, plus coaxial and optical digital audio outs.

Inside and out

Under the lid, the CXUHD uses Mediatek's MTK8591 chipset, with video output settings 'professionally calibrated' by Cambridge Audio engineers. 'Whatever you're watching, you'll find the dynamic range has been optimised, bringing natural colours and a film-like fluidity that you have never seen before,' says the company.

Cambridge Audio will hope that the player's design and build appeal to cinema owners seeking a step up from a budget BD biscuit tin. Weighing in at 5kg, the CXUHD is a full-width machine, with the same brushed aluminium front-plate and chassis design of its CX stablemates. A 'high-precision, balanced laser optical disc-loader' has been specified for reliable error-corrected playback and superfast loading times.





A View to a Killing...

A US District Court judge has ruled that an angry Washington-based Bond fan has the right to sue Twentieth Century Fox and MGM over the 2012 Bond 50 boxset. The complaint stems from the decision not to include either the original Casino

Royale or Never Say Never Again in the set, despite the use of the words 'every' and 'all'

on the packaging to describe the Bond films it contained. The judge concluded his verdict on the case by stating: 'From the defendants' perspective, this claim will have to *Die Another Day*'...

Xbox tunes into Spotify
Microsoft has added
Spotify (with Spotify
Connect functionality) to the roster of apps available in its

Xbox Store. Able to run in the background, it means gamers can now choose to listen to their favourite tracks while getting shot to pieces during a *Call of Duty* marathon...

Can't. Stop. Watching.
In a report labelled 'Box Set Britain', industry regulator Ofcom has reported that the UK is a nation of binge-watching TV addicts, with 40million of us viewing multiple episodes of TV series back-to-back through catchup/VOD services. Thirty-five per cent are trying to cut back on their boxset habit, however. Maybe they should stick a movie on instead.

4K flying out the door

Over in the US, the Consumer Technology
Association (CTA) has announced that
the take up of 4K TVs is 'far outpacing the
transition to HDTV' of around 10 years ago. Yet it's
also predicting that 2017 will begin a slight decline
for LCD technology as OLED grabs a bigger slice
of the market.

Gump goes vinyl

Boutique label Music on Vinyl is giving Alan
Silvestri's Oscar-nominated Forrest Gump
score its first ever vinyl release this month.
Fittingly, the initial pressing of 1,500 numbered
copies of the 180g record will be chocolate-coloured.

If I had a Hammer...
Following its two Ray Harryhausen Blu-ray boxsets, cult label Indicator has revealed plans for a Hammer package. Due for release on October 16, Hammer: Volume One – Fear Warning! boasts feature-packed editions of The Curse of the Mummy's Tomb, Maniac, The Gorgon and Fanatic.

Meanwhile, StudioCanal has announced that it will be celebrating 60 years of Hammer Horror with newly restored Double Play releases of Blood from the Mummy's Tomb, Demons of the Mind, Fear in the Night and Scars of Dracula arriving on October 23. Dr. Jekyll and Sister Hyde, To the Devil a Daughter, Straight on Til Morning and Horror of Frankenstein will follow on November 13.

Paramount has Vision
Paramount is the latest Hollywood studio to announce that it will start mastering content in Dolby Vision for Ultra HD Blu-ray and online streaming services. 'We are thrilled to be working with Dolby to enhance the consumer experience as they enjoy [our] movies in Dolby Atmos and Dolby Vision,' stated studio bigwig Bob Buchi.

Lovefilm gets divorced

Amazon has announced that the discrental-by-post service Lovefilm, which it bought six years ago, will stop on October 31, citing a 'decreasing demand for BD and DVD rental as customers increasingly move to streaming.'

Mounting accessories
Ever wondered where to put your
Apple box or Amazon Fire once you've
wall-mounted your TV? Well, never fear,
Sanus has a solution. Its new £20 SASP1 Streaming
Device Panel is a perforated metal plate that affixes
to any TV mount – or directly to the rear of a TV
– and allows streaming devices or other accessories
up to 1.3kg to be discreetly and securely tucked
away out of sight.



Premiere...

What's happening in the world of TV and films...

Milla heads to Hell



Neil Marshall's upcoming Hellboy reboot may have lost its 'Rise of the Blood Queen' subtitle, but appears to have found the lady herself, with Milla Jovovich signing on to play the villain. Ian McShane has also joined the cast, playing Hellboy's adoptive father Professor 'Broom'.

It's Millar time!

Netflix is gearing up to take on Warner Bros/DC and Disney/Marvel at their own game, following its recent acquisition of Millarworld. The Scottish comic book company was founded by *Kick-Ass* and *Kingsman* creator Mark Millar and Netflix promises to bring its raft of characters to the screen through films, series and kids' shows.

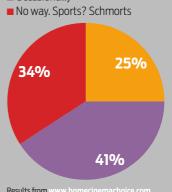
Cena cr<u>eates a buzz</u>

Superstar wrestler John Cena has joined the cast of *Transformers* spin-off *Bumblebee*. Centring on the '80s exploits of the popular VW Beetle/giant robot, the film will be helmed by *Kubo and the Two Strings* director Travis Knight.

We asked...

Do you watch sporting events on your home cinema system?

- Yes. All the time!
- Occasionally



Results from www.homecinemachoice.com Go online for more polling action





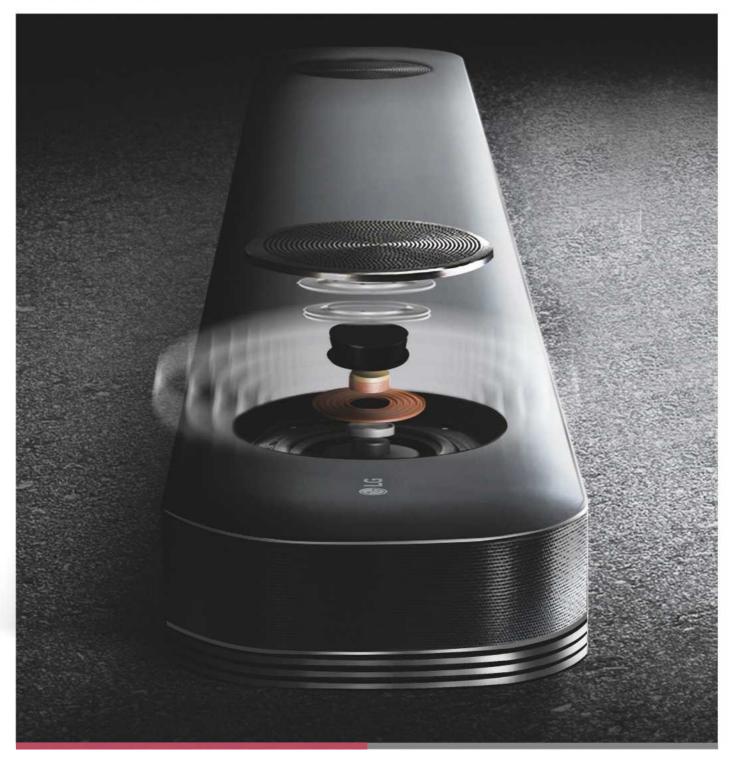




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LG SJ9 JANUARY 2017

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LG SJ9 AUGUST 2017

Face to Face

Topics of discussion on the *HCC* Facebook page

Favourite movie based on a TV series?



Twin Peaks: Fire Walk with Me.
Beautiful and hypnotic to watch!
Robert Corrigan

First X-Files; Star Trek – The Motion Picture; ...Wrath of Khan; Star Trek (2009); ...Into Darkness; Callan; Quatermass and the Pit. Mark Hevingham

Mission: Impossible. Jeff Baker

What you're watching on your home cinema...



Blade Runner: Final Cut and Power Rangers on my Dolby Atmos setup. Neil Anderson

Amityville Horror Steelbook Blu-ray which I won last month in your superb mag.

Chris Starr

50 Shades... sequel. Not my choice, and, yes, my wife will read this and I will be in trouble.

Matt Greaves

Kong: Skull Island in 3D. Phil Hackett

The Fifth Element and Leon: The Professional on 4K UHD Blu-ray
– a Luc Besson weekend!
Mark Edwards

It will probably be Jaws BD and Close Encounters of the Third Kind BD in that order.

Mark Jones



Ghost in the Shell in Ultra HD/Atmos in a dented Steelbook (thanks Zavvi), plus

an *Evil Dead* all-nighter (various formats with friends). *Mike Wadkins*

The Before Trilogy and Colossal. Ian Cooper



Back of the 'net

Trailers, technology and more to check out on the web



Law and disorder

Get a second dose of Wonder Woman this Winter with the Warner/DC's *Justice League*, where she's joined by Batman, Aquaman, Flash, Cyborg and maybe an old friend. Out in cinemas on November 17, the latest (lengthy) trailer teases a somewhat lighter tone than ... Dawn of Justice, plus copious SFX. youtu.be/g_6yBZKj-eo



Getting higher and higher

If you saw Christopher Nolan's *Dunkirk* this Summer and left the cinema shell-shocked, Hans Zimmer's score might have had something to do with it. As this informative vid from *Vox* explains, Zimmer uses the Shepard Tone (a clever auditory illusion) to ratchet up the tension. And the sound of Nolan's watch... youtu.be/LVWTQcZbLgY



Long live rental

Just because Lovefilm is closing its doors it doesn't mean the days of physical disc rental are over. Freepost service CinemaParadiso has a four-tier subscription (starting at £6.98 per month for four DVDs/Blu-rays) and a heady library mixing blockbuster fare with world cinema and TV series. www.cinemaparadiso.co.uk



Protect and serve...

Synology has released a new 4-bay NAS enclosure aimed at home users and priced to tempt. The £280 approx DiskStation DS418j offers space for up to 40TB of storage, automated RAID management, DSM operating software and a claimed 8.9W low-power consumption.

www.synology.com/products/DS418j



Easter Egg overload

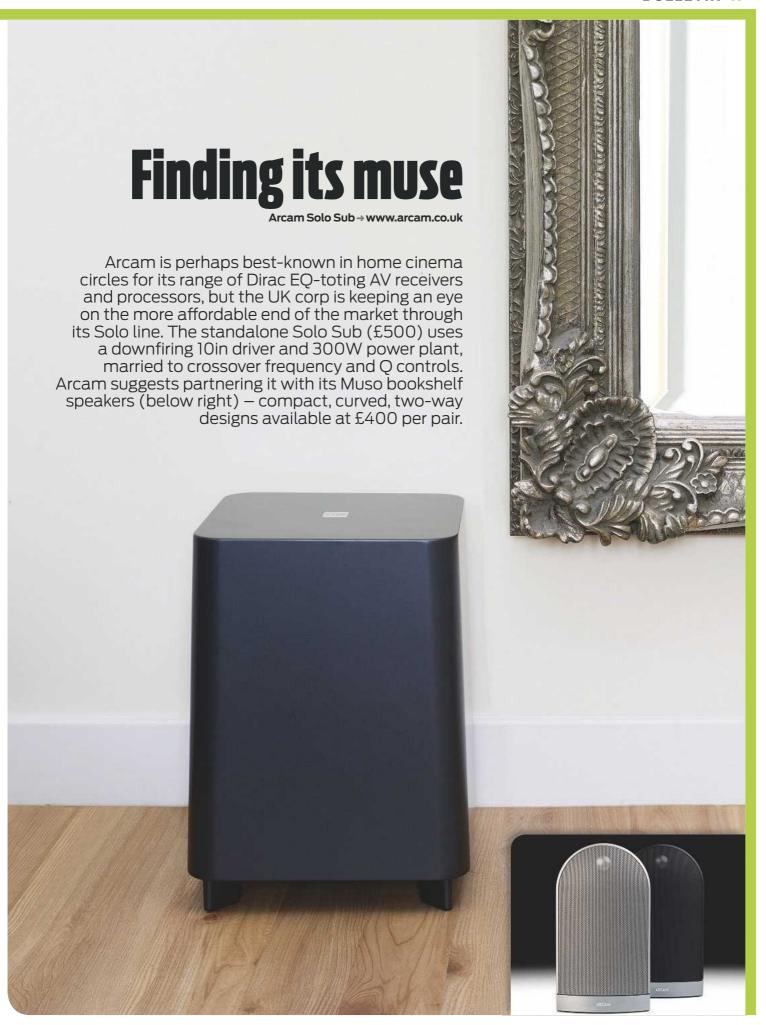
Steven Spielberg's adaptation of cult novel Ready Player One isn't due 'til March, but a teaser released at the San Diego Comic Con already has fans drooling, mainly over the numerous film/comic culture references dropped into its OASIS VR world. Can you spot the A-Team van? youtu.be/dtwpjnuaVTE



Bangin' choons, man

Dolby Atmos is strengthening its hold on home cinema audio – and making a push for nightclubs too. Here, the likes of Deadmaus and London Elektricity (Google 'em...) discuss their excitement at mixing tracks in 3D audio, and give you a sneak peek at some of the production processes.

youtu.be/kqlAgf_TRms



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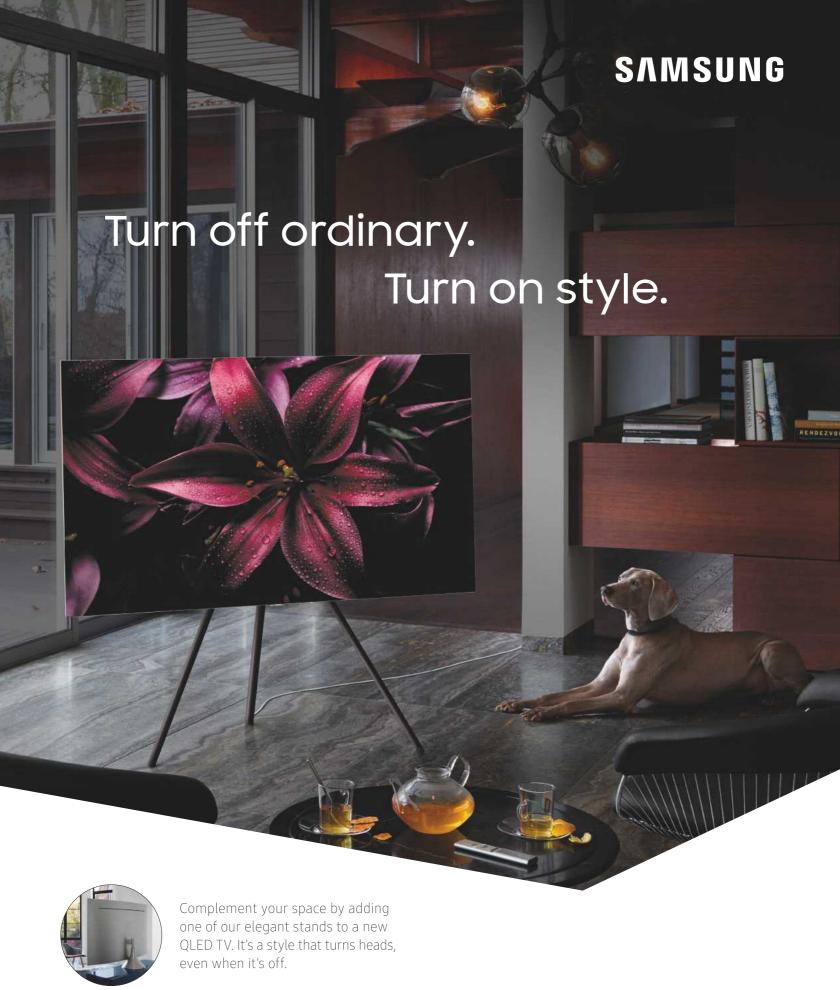
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BYITSHOSTILITY...

Alien: Covenant arrives on 4K Blu-ray this month to continue a legacy of sci-fi terror that began in 1979. **Stephen Graves** goes on one more ride with Ridley Scott's masterpiece >

IN 1979, CINEMAGOERS witnessed the birth of a Hollywood icon. Not an actor, but a sleek, terrifying creature that seemed to have sprung fully-formed from a nightmare – the alien. Unlike anything that had been seen onscreen before, *Alien* changed the face of sci-fi and horror, and reached beyond cinema itself to influence the worlds of literature, music and art.

It took time for Alien to hatch. Since working on John Carpenter's 1974 sci-fi comedy Dark Star, writer Dan O'Bannon had harboured ambitions of creating a realistic screen alien – that film's budget restrictions having forced him to whip up a creature out of a beach ball and a pair of rubber gloves. Broke and living on producer Ron Shusett's sofa after a stint working on Alejandro Jodorowsky's aborted Dune project, O'Bannon revisited some of his old ideas. 'I had gotten good responses the previous year from another sci-fi/horror script I had written called Omnivore.' he would later tell film historian David Konow. 'The studios liked it, but they didn't know how to do the special effects.' Accordingly, O'Bannon's script for what was then called Star Beast stripped things back to the bare essentials. A single tall, humanoid creature – easily realised using contemporary special effects technology - would hunt the crew of a spaceship.

Like 1976's Jaws, O'Bannon's script brought an A-picture sensibility to a B-movie plot. The idea of an alien creature stalking people in an isolated location was, in itself, nothing new – the concept had already been mined in B-picture It! The Terror From Beyond Space and Mario Bava's Planet of the Vampires, and all the way back to 1951's The Thing From Another World. But, says O'Bannon, 'I thought about Forbidden Planet a lot more than I thought about It! The Terror From Beyond Space. My mind was a big basket full of every science-fiction story and movie that had been written in the last forty years.'

The script's stroke of genius came about as O'Bannon and Shusett wrestled with the problem of how to get the monster onto the spaceship in the first place. Appropriately, the idea came to



Swiss artist HR Giger contributed to the film's distinctive set design

Shusett in the middle of the night, as he recounts during *The Beast Within: The Making of Alien* [Charles De Lauzirika's immense documentary produced for the *Alien Quadrilogy* boxset]: 'It jumps on his face, plants a tube down his throat, inserts its seed in him, and then later it comes bursting out of his stomach!'

Suddenly, everything clicked. The creature's realistic, parasitic life cycle, the script's Freudian undercurrents, and the shock moment that would come to define *Alien* were in place. Now it just needed a host.

Great Scott!

Alien, as the script was now known, did the rounds of Hollywood studios before being picked up by Gordon Carroll, David Giler and Walter Hill of Brandywine Productions. Hill and Giler revised the script, adding more dialogue and character names and a subplot about an android infiltrator among the crew...

Alien, again... How the franchise grew through four decades



Aliens

James Cameron's 1986 sequel ditches the nerve-jangling terror of the first film for action-movie set-pieces starring a crew of Colonial Marines straight out of *Full Metal Jacket*. Themes of motherhood are at the fore, with Ripley taking on scrappy survivor Newt as a surrogate daughter and an Alien Queen lording it over her brood.



Alien³

David Fincher's debut feature (1992) was beset by production problems and rewrites, but the film – with Ripley marooned on a prison planet – is steeped in his trademark baroque darkness. The extended Assembly Cut adds in 37 minutes of footage and makes for a much more satisfying viewing experience.



Alien: Resurrection

Bringing Ripley back from the dead in 1997 – spoiler! – and turning her into a half-alien clone gives Sigourney Weaver a chance to approach the character from a new angle – a sort of morally dubious Frankenstein's monster. Director Jean-Pierre Jeunet delivers some standout scenes, but never feels entirely at ease in the Alien-verse.





Kane (John Hurt, above) is the unwitting vehicle for the Xenomorph, and star of the movie's most memorable scene...





Crucially, the success of *Star Wars* in 1977 had made studios far more receptive to the idea of sci-fi. 20th Century Fox snapped up *Alien*, with Brandywine approaching former commercials director Ridley Scott to helm the picture; the producers had been impressed by his 1977 feature debut *The Duellists*. 'I knew there were others before me, including, for some bizarre reason, Robert Altman,' Scott would later recall. 'But there was a gong in my head and I went "Damn! I know what to do".'

As any Alien fan will testify, Scott's involvement proves key to the movie's unique feel and lasting appeal. With his background in design (in the 1960s he was a BBC set designer), he bought an intensely visual sensibility to the project, storyboarding the film's key sequences himself in a bid to loosen Fox's purse strings.

Even before the script was completed, O'Bannon had fleshed out the look of the movie's titular monster, gathering together artists including Ron Cobb and Chris Foss to provide concept designs. Foss concentrated on the cathedral-like exterior of the spaceship Nostromo, while Cobb brought a practical eye to the cramped spaceship interiors. Scott also brought in Jean 'Moebius' Giraud, alumnus of French sci-fi comic *Heavy Metal* — who'd also worked on Jodorowsky's *Dune* — to design costumes for the crew.

The finished look of the alien itself was down to one man, however, Swiss artist Hans Ruedi Giger. O'Bannon had worked with Giger on *Dune* and recognised that his 'biomechanical' style would be the perfect way to give the film's creature a distinctive look.

'Dan took me aside, like he was showing me a dirty book,' Scott told *Cinefantastique* in 2008. 'It was Giger's book, *Necronomicon*. My eyeballs nearly fell out.'

Contrasting vividly with the more grounded style of the other artists, Giger's eerily organic lithograph Necronom IV formed the basis for the alien design; he also worked on the 'facehugger' larva and the derelict ship where the creatures lurk.

To bring his alien into three dimensions, he turned to an array of found objects – everything from car



parts to animal bones to an actual human skull. 'In the first design for the alien, he had big black eyes,' Giger said during the publicity push for the film in 1979. 'But somebody said he looked too much like a Hell's Angel. And then I thought it would be even more frightening if there are no eyes. We made him blind! Then when the camera comes close, you see only the holes of the skull.'

'Ridley had in mind to create a creature which could in fact also be beautiful,' explains Giger in Mark Kermode's superb 2001 documentary *Alien Evolution*. 'That is to say, elegant or aesthetic [...] It depends on the way in which it is represented, that is to say how it acts.' Inside the suit was 6ft 10in graphic designer Bolaji Badejo — discovered by the casting designer in a pub — who studied mime and tai chi to give the creature a sense of balletic grace.

That looks familiar...

As well as looking startling, Giger's sexually suggestive designs (such as the womb-like egg chamber) are a vital element of the movie's chilling nature, according to O'Bannon. 'One thing that people are all disturbed about is sex,' he stated in 2002's *The Alien Saga* documentary. 'I said: "That's how I'm going to attack the audience; I'm going to attack them sexually. And I'm not going to go after the women in the audience, I'm going to attack the men. I am going to put in every image I can think of to make the men in the audience cross their legs".'



AVP: Alien vs Predator

More Freddy vs Jason than Abbott and Costello Meet Frankenstein, this mid-budget 2004 crossover with Fox's other extra-terrestrial powerhouse (subtly teased by the sight of a Xenomorph skull in Predator 2) is rather less than the sum of its parts, although director Paul WS Anderson succeeds in dialling up the action to 11.



Aliens vs Predator: Requiem

The perfect lifeform suffers from inbreeding in this franchise low, as directing team The Brothers Strause pepper a B-movie script with gratuitous continuity references while merrily ignoring the established life cycle of the alien, and making its Predator character immensely stupid. That it's all shot in pitch darkness doesn't help matters.



Prometheus

Ridley Scott returns to the *Alien* franchise... sort of. Ignoring the titular critters entirely, this 2011 prequel instead explores the backstory of the first film's 'space jockey' – here reimagined as one of the Engineers, a race that may or may not be the creators of humanity. Meanwhile, a science expedition is picked off in a variety of grisly ways...

Set Scott free

The Alien Director's Cut keeps the tight pacing



Released on disc and in a limited theatrical run in 2003, the Director's Cut of Alien is that rarest of things – a director's cut that's shorter than the original theatrical release.

A number of scenes were trimmed - including one suggesting that android Ash was deliberately assigned to the Nostromo to retrieve the alien. Alternate takes include Lambert's more violent reaction to Ripley's refusal to let the crew back aboard. But the stand-out addition is the infamous scene in which Ripley encounters Dallas and Brett cocooned by the alien, in the process of being transformed into new eggs, which has caused much fan headscratching over the years regarding the Xenomorph life-cycle.

Scott himself is somewhat ambivalent about the release declaring that the theatrical cut is his preferred version, and claiming that the Director's Cut is named as such 'for marketing purposes'.

Ellen Ripley: 'She had the attributes necessary to survive





Yet while O'Bannon was busy cramming his script with Freudian references – the Nostromo's computer is called Mother, for instance – he was also busily demolishing traditional gender roles. 'The crew is unisex and all parts are interchangeable for men or women,' his script proclaimed, paving the way for one of Hollywood's great screen heroines, Warrant Officer Ellen Ripley, a role that went to newcomer Sigourney Weaver.

Weaver was treading the boards off-Broadway when Scott approached her for the movie's main part – and what would end up being an atypical female role. 'I remember thinking, women aren't allowed to play these warriors,' she says in Titan Books' Alien: The Archive. 'I've been handed this opportunity to play a woman who becomes a warrior and goes from someone rational to someone who's completely instinctive. The arc of the character was so incredible.

And where the horror genre often treated women as meat for the grinder, Ripley was a survivor; smart, capable and unflappable. Women had previously been cast as the love interest, too, whereas Ripley was the protagonist. Inverting decades of stereotypical female roles, it's Ripley who's the most rational, grounded member of the Nostromo crew, calmly running through the quarantine checklist while her (mostly male) colleagues flap around in a panic. 'Ripley survived because she had the attributes necessary to survive,' said Weaver in a 1979 Fantastic Films interview. 'She wouldn't give up and had the ability to go into overdrive.'

Helped along by return appearances in three sequels, the character of Ripley has become a sci-fi icon, with The Terminator's Sarah Connor and Buffy the Vampire Slayer continuing the trend. Yet Alien's influence stretches far beyond its central character. Dozens of films have riffed on its combination of visceral scares and claustrophobic sci-fi setting, from Italian knock-off *Alien* 2 to the more worthwhile *Event* Horizon and recent Jake Gyllenhaal flick Life. It made a superstar out of Giger, whose work went on to

12

grace everything from album covers to interior design. And together with Star Wars' 'lived-in' aesthetic, Alien overhauled the look of sci-fi cinema, adding a patina of grime to the genre's shining surfaces and pristine uniforms; its blue-collar heroes made space the preserve of real people, rather than silver-suited adventurers and clinical Vulcans. And, with its titular creature, it reminded us that outer space is a dark, scary place, where humanity's just one more link in the food chain...

Thrilling experience

While nearly forty years old, *Alien* – which capped a decade bursting with horror classics including The Exorcist, Don't Look Now and Halloween – has lost none of its power to terrify. Rewatching it now is a thrilling experience, not only because of its hair-raising chills, but its masterful visual effects, lean plotting and perfect casting.

And, thankfully, home cinema enthusiasts have been well-served through Alien's lengthy history on domestic formats. With Super8 and VHS editions, via LaserDisc to DVD and Blu-ray, Fox has kept its crown jewel well-polished, aided by a director with an appreciation of what a good home media release is all about.

Best of all, the 2010 Blu-ray boxset release, Alien Anthology, scoops up every single featurette, Making of... doc, art gallery and commentary track a Xenomorph lover could wish for – not just for the series opener but its trio of follow-ups. This means you get not only Scott's chat tracks for both the film's theatrical and Director's Cuts [see boxout, left], but a cast and crew commentary, the

> aforementioned The Beast Within: The Making of Alien doc, all of the extra features first used on the film's LaserDisc release, more documentaries, and a whole host of new goodies not featured on the previous Alien Quadrilogy DVD set. Sure, much of these supplementary elements are presented in standard-def, but if there's ever been a better all-round package for a film franchise, we're yet to see it... ■

See p96 for our Alien: Covenant 4K BD review





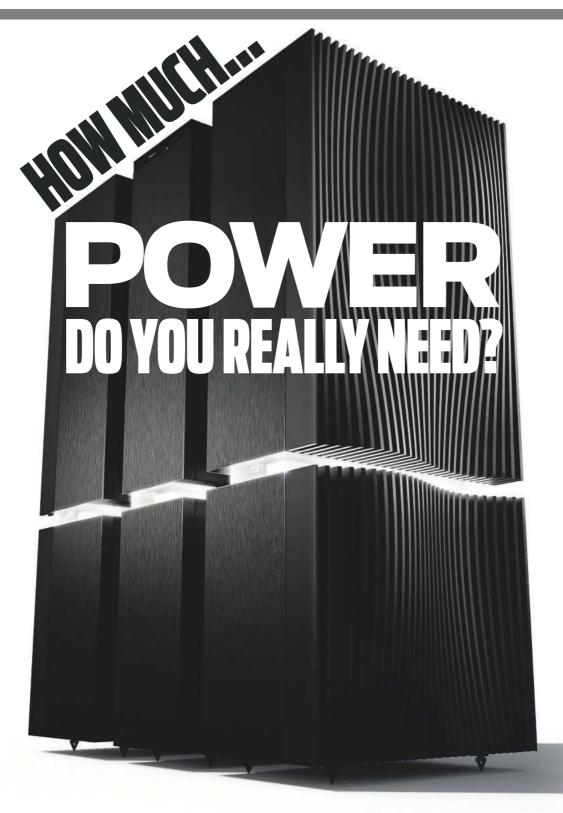
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Contact Marata Vision for more information



Richard Stevenson discusses the relationship between loudspeakers, amplification and your ears...

WHAT'S IN A watt? With AVRs boasting anything from 50W to 200W-per-channel and speakers suggesting an equally wide range of power requirements and sensitivities, just how many watts does your cinema setup need?

To confuse the issue further, while James Watt laid down a very strict description of a 'watt of power' while messing about with steam engines in 1882, manufacturers tend to play rather fast and loose with their numbers. For example, while a

seven-channel AVR might claim 150W-per-channel, it might only achieve a fraction of that output driving real speakers with a real movie. So let's have a look at some of the big power questions:

What's a speaker's sensitivity?

Expressed in decibel/watt (dB/W), a speaker's sensitivity is its volume level output (from a distance of one metre) with an input of just 1W of amplifier power. As the majority of home cinema speakers have a sensitivity in the range of 85-90dB/W, and 85-90dB is pretty darn loud, then you clearly don't need a lot of power to make quite a bit of noise.

The problem is that decibels are measured on a logarithmic scale. You need to double the power input to get just 3dB increase in volume output. As doubling power gets into big numbers quickly (1, 2, 4, 8, 16, 32, 64, 128, 256, etc.) you do need a lot of power to make a lot of noise.

The one-metre measurement perhaps doesn't equate well with your home cinema environment, but is a good catch-all figure as while sound pressure naturally drops as you get further from a speaker, it will at the same be increased by the multiple speakers in a multichannel system.

What makes some speakers more sensitive than others?

Pistonic speaker drivers haven't changed much in 70 years. They still require a coil to produce a current from the input signal, within a magnetic field, to throw a piston (cone, panel or dome) back and forth. Bigger coils, tighter tolerances on how close the coil is to the magnet and even cone construction all influence sensitivity of the driver.

The driver also interacts with the speaker cabinet (much like an acoustic guitar's sounding box) so cabinet design has a major impact on sensitivity. Generally, speakers with ported cabinets and horn-shaped baffles on the tweeter are more sensitive than sealed cabinets and flat baffles, as are models with multiple drivers.

Most loudspeaker companies offer a quoted speaker sensitivity rating, and it's something to keep an eye on when drawing up a shortlist. Models with a low sensitivity aren't necessarily suited to the dynamic peaks of home cinema audio. Don't assume that the more expensive the speaker, the more sensitive it will be, however.

Level' volume is 85dB with 20dB of headroom for big peaks in movie soundtracks (up to 105dB), making sure that all those explosions sound... explosive.

That, says the company, is 'the exact volume level used by movie makers and sound artists'. That may be true but our opinion is that the very best volume is the one you enjoy the most.

If you need to keep the family or neighbours happy, or like being able to have a natter while watching a movie, then this level will likely be too loud – thankfully, a good AVR and speaker array will still sound great at lower volumes. Conversely, if you have more subwoofers than neighbours, amplification best measured in kilowatts, and a dedicated cinema room, you will want to go there. But you will need loudspeakers that are up to the task, in addition to power.

My loudspeaker says its power handling is 15W-150W – what does this mean?

A speaker's power handling range is a little confusing as manufacturers generally mean the recommended maximum power output of the amplifier you are going to attach the speaker to. The lower number is rather arbitrary. If the speaker didn't actually function until it was getting 15W, then a speaker with an efficiency of 85dB/W would not make any noise at all below about 100dB – not very practical.

The bigger number is the one to watch out for. That figure is usually the maximum input power that the maker suggests the speaker can safely handle. Above that, the speaker coils might overheat or the drivers reach the limit of their excursion. Both scenarios mean wholesale distortion often followed by a large repair bill. However, as we rarely use much of our amplifier's power (we're getting

Class divide

Because not all amplifiers are created equal...

Power amplifiers are classed according to their circuit path and mode of operation. There are numerous different classifications, but the ones you are most likely to encounter in an AV receiver are Class AB and Class D.

Class AB is the most common, and as the name suggests, combines the characteristics of Class A and Class B amps. The former design, beloved of audiophiles, amplifies the whole analogue waveform in one go and is known for its accuracy but lack of efficiency (meaning it turns a lot of your expensive mains electricity into heat.) Class B, on the other hand, amplifies the positive and negative halves of the waveform individually, before stitching them back together. It is much more efficient but much less accurate than Class A. Essentially, in a Class AB amp, a small amount of Class A is used for accuracy at low levels and Class B is employed for big power swells.

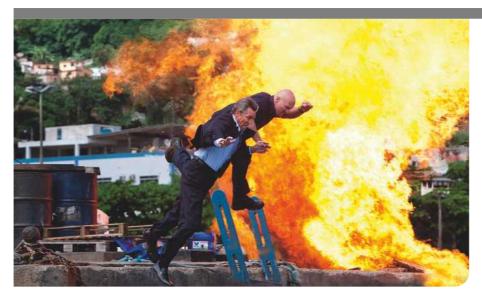
Class D doesn't mean digital – it just happens to be the next available letter after Class C. Class D amps use pulse-width modulation of a digital signal to drive analogue output stages. It's efficient, particularly for AVRs with their natively digital audio streams, and can be extremely accurate, too. It's less widely used in AVRs, however – you're more likely to come across Class D in subwoofer amps, where high power levels are required to drive those large woofers without the need for heatsinks the size of fridges.



When it comes to buying an AVR, a manufacturer may not even specify what amp design it employs. Typically, it's those using Class D designs (there are various iterations) that will advertise the fact, such as Pioneer.

At what level should I be listening to movies anyway?





The Expendables: The sort of movie where you'll want your AVR to have power in reserve...

to that bit in a minute...) you are unlikely to damage any modern speaker with too much power under normal use.

Okay. How much power does my AVR provide?

Amplifier power ratings are where a lot of manufacturers start getting creative with Watt's watts. While all models feature a quoted power figure, how it's arrived at depends upon how those watts are measured. Do you measure power output at a very high Total Harmonic Distortion (THD) of 1 per cent or at very low, high-fidelity THD such as 0.05 per cent? Do you use a single, easy-to-produce frequency such as 1kHz, or across the trickier whole audio bandwidth of 20Hz to 20kHz? Into a low-impedance speaker (4 Ohms) or a more realistic 8 Ohm speaker load? And do you measure with a single channel of the amplifier driven or against the bigger challenge of all channels driven?

In all of the above cases, the first measurement will result in a much higher power rating than the second. Compound these factors together and the difference between the highest power rating (a single-channel measurement with a high THD, at 1kHz into a 4 Ohm load) and the lowest (low THD, 20Hz-20kHz, 8 Ohms, seven channels driven) can be vast. An amplifier that shouts 200W on the marketing sheet might only make that under the best-case measurement conditions. In a real-world home cinema system playing a movie, it might only be good for 50W-70W per channel.

If the power output of a potential AVR or amplifier is a key concern, compare how power ratings are measured, not just the headline number. But don't sweat it too much...

This is when you tell me power doesn't matter that much, isn't it?

Well, how sensitive are your speakers? How loud do you want to listen? How deaf are your neighbours? Really, it doesn't matter (the AVR power that is – the neighbours probably do). All current AVRs produce more than enough power to drive all current home cinema loudspeaker packages to enjoyable levels. Remember that speaker sensitivity thing? If your speakers are 85dB/W or more, then to get THX's 85dB reference level requires less than 1W per channel.

So, your AVR doesn't 'need' many watts – but you might still want them. Higher power-output AVRs can go ultimately louder at the extreme end of home cinema sound pressure levels – that speaker with an 85dB sensitivity will require 128W to hit 106dB peaks, after all – but the real advantage is subtler than that. More power generally means bigger power supplies, better circuit design, thicker PCB tracks and cabling, and improved components to deliver greater dynamic peaks. All this potentially results in better overall sound quality at any level.

Is it always a case of more power equals better sound, then?

Sadly not. While more power is certainly a desirable asset to have a surfeit of, it only plays a small part in the sonic performance of your AVR and an even smaller role in the sound of your entire home cinema system. Cutting-edge digital processing for uncompressed audio formats is going to deliver much greater sonic reward than a few more watts.

Similarly, adding height speakers, investing in a great subwoofer, ensuring your system is calibrated properly and even tweaking your room acoustics are all likely to deliver a more discernible improvement in sonic performance than extra grunt from your AVR. Of course, if you have got all the basics right and are ready to ice your home cinema cake with a reference-level cherry (or have a cavernous room), then a higher-power receiver or a monster multichannel amp might just be the way to go

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AMONG US HIDE... THE INHUMANS

Marvel's new superhero show, *Inhumans*, is having its premiere on IMAX screens worldwide. **Steve May** talks to director Roel Reiné...



MARVEL'S NEW INHUMANS comic book adventure show blurs the lines between cinema and TV in a way that's never been done before. For the first time, a live-action TV series has been filmed with IMAX cameras and is premiering on the biggest screens in the cinema world.

It's an extraordinary launch for a new series, and offers superhero fans a unique way to experience this expansion of the Marvel universe. The first two episodes of the show, edited together as *The First Chapter*, have screened in IMAX theatres for a limited engagement from September 1. According to director Roel Reiné, this will be the only chance viewers have of seeing this ultra-high-

resolution IMAX version of the show. Still, if you miss it, you'll be able to view on the smallscreen later in the year.

Reiné shot the episodes with the Arri Alexa IMAX 2D digital camera. First used by Joe and Anthony Russo for the memorable airport battle sequence in *Captain America: Civil War*, it's now being employed to shoot *Avengers: Infinity War*.

HCC caught up with Reiné in London, even as the final visual effects work was being completed on the series. We were treated to a sneak preview on London's BFI IMAX screen, and were blown away by the experience. This certainly doesn't look like just another Marvel TV series...

Shooting a TV show for IMAX seems extraordinary. Is that what drew you to Marvel's *Inhumans*?

It was a blast! It's like being a kid in a toy store – you get to play with your favourite format. As a filmmaker, I love IMAX. It's my favourite way of watching movies. Wherever I am working in the world, the first thing I do is look up the local IMAX theatre. So when I heard they were doing an IMAX TV series, I was like: 'I want to do that.'

I've never shot with IMAX cameras before. I thought I was going to be shooting with the big Chris Nolan refrigerator IMAX cameras, but then I was told I would be using digital IMAX cameras. There are only nine in the world...

You've joined an elite club of film-makers. Clint Eastwood shot much of *Sully* on them, and Michael Bay filmed sequences in *Transformers:* The Last Knight. Christopher Nolan swears by them...

I begged IMAX to let me speak with Chris Nolan, and they promised a conversation... but it still didn't happen.

How significant is the fact that there's a TV show made for IMAX?

TV is evolving. It's much more creative, the stories being told are more exciting and they look more cinematic – but people are watching TV on smartphones and iPads. There's no emotional involvement. I hope this is the start of bringing really good stories back to the cinema. I'm excited to be part of that.

How do you watch TV at home?

I have a little home theatre in my house, with twelve seats and Dolby Surround, the whole shebang, so I watch TV like movies. If you watch television like television – your Twitter account goes off, the dog is barking, the kids come in, the phone rings – there's no emotional involvement. When you go to a movie theatre, and the lights go down, you're really focused on that one thing. I'm lucky, I have a little movie theatre in my house, but nothing compares to IMAX...

Could this be the start of a trend?

I think this is the first and many others will follow. IMAX does big movies, but there are two-week slots here and there over the course of a year where there is no real content – the blockbusters have run out and there's nothing new. In their search for new content, IMAX thought 'let's invest in TV and bring TV pilots to the IMAX screen.'

Is there any link between this TV series and the mooted Marvel Studios *Inhumans* film?

Marvel Studios announced *Inhumans* for 2019, but in that [Phase 3] timeline there was only one *Guardians of the Galaxy* movie and only two *Avengers*, so things have changed. I know they never developed a screenplay for an *Inhumans* movie, and

I know that when they were looking for properties to develop for TV, they quickly came to *Inhumans* because the characters were so diverse, and had so many stories to tell. Doing *Inhumans* on TV gives you the chance to spend 30 hours with these characters instead of cramming them into two hours.

We've seen Inhumans on Agents of S.H.I.E.L.D. before now, but this is the first time we've seen the classic characters, literally Inhuman royalty — Black Bolt, Medusa, Maximus, Karnak, Gorgon, Crystal and Triton. What do we need to know about them?

Their superpowers are a burden for them. Inhumans go through a ritual at a certain age and are exposed to Terrigen mist from Kree Crystals. After the process they learn what their inhuman power is. Some are lucky, and get a good superpower, while others just get a claw, which means they have to dig the mines beneath Attilan City [on the moon]. The result is that there's a caste system in the Inhumans world. When you get a good superpower you're at the top and when you have a bad superpower you're at the bottom. That makes this world... not very good. Maximus, the brother of Black Bolt, is human — that's what happened to him after his Terrigenesis process. Devastating for him, because he becomes the lowest of the low...

Did you read the original Stan Lee/ Jack Kirby stories before shooting?

How does *Inhumans* fit into the rest of the Marvel Cinematic Universe, or at least *Agents of S.H.I.E.L.D.*?

Even if I knew the answer I couldn't tell you! Marvel is very secretive. The connection between movies and TV properties is a big deal for them. The answer is... maybe there are connections. When it comes to Terrigen mist, we looked at the *Agents of SHIELD* episodes and copied how it visually looks. But I also put in a lot of Easter Eggs in my two episodes, because I love this stuff.

We love Easter Eggs too! What's to look out for?

The [alien] Kree have a very specific language. So if you look at the scenes in the Inhumans Throne Room, and the iconography of the Kree language on the walls, you will see a lot of connections and tie-ins in the hieroglyphs...

Shooting in IMAX must be quite different from composing for widescreen or TV...

When I normally shoot movies it's in a 2.40:1 ratio, but with IMAX it's 1.9:1, so there's all this extra headroom. When I was scouting in Hawaii I was looking for locations that could use the scope of IMAX. I like to shoot low angle, so this makes the image even bigger. After a camera test, I told IMAX that the lenses were not wide enough.



Aussie actress Isabelle Cornish (Crystal) has gone from Summer Bay to Attilan



The show's first two episodes have been lensed on Alexa IMAX digital cameras

Smallscreen Marvels...

Who's on where?

Agents of S.H.I.E.L.D.



Season 5 of this ensemble show lead by Clark Gregg as Agent Coulson is due to land on ABC in the US later this year; C4/E4 has so far aired the first four runs in the UK. Blu-ray buyers can currently pick up Seasons 1-3.

Agent Carter

This fine spin-off series from Marvel's *Captain America* movie ran for two seasons before sadly being pulled by ABC. At least you can catch all 18 episodes on UK Blu-ray.

Netflix Originals

Marvel and the streaming giant have collaborated on bringing the former's Defenders team of superheroes to your telly, beginning with Daredevil in 2015, and following with series focusing on Jessica Jones, Luke Cage and Iron Fist, before the team-up Defenders series released in August. All five shows have aired in 4K; Daredevil (S1, S2) and Jessica Jones (S1) have so far been outed on BD.

So they built a special lens in London for the show, to be even wider.

After the IMAX screenings, Inhumans will debut on TV. How different will that version be?

The IMAX version has bigger, wider shots, while the TV version has more close-ups. It was written as a TV series, which has five acts; in the feature film world you have three acts, so it has a different kind of structure. And on TV you'll never feel the resolution or the quality. The Arri Alexa IMAX camera shoots at 6K. The other episodes use Arri Alexas, which is also a very cinematical camera, but only the IMAX version gives you such resolution and level of detail. You see the difference.

We got the impression that audio could be just as significant as the picture quality for the show...

For me sound is 70 per cent of the movie experience. TV deserves the same. But a lot of times, TV sound is just stereo. I notice that in my home theatre. It's not that cinematical. With the *First Chapter* you'll feel the subwoofers and hear the surround. In IMAX, the sound is everywhere.

With so many super-powered characters, creating the visual FX must be daunting...

The biggest challenge was creating Medusa's [fully animated] hair. I knew it would be from the beginning. Doing water is simple these days, doing creatures is simple these days, but having hair that interacts with people is difficult. And I like big

close-ups, so there's so much detail. But we found a visual FX house in Sweden that specialises in water and sharks, and they did the hair. For them, it was also new. We're very lucky that it turned out so well!

We're betting the breakout character of the show will be Lockjaw, the Inhumans' teleporting dog...

I think people will like Lockjaw. It interacts with the people and it's mindboggling when you see it. Lockjaw is a full CG character, which has never been done before. Lockjaw is a really big dog, as big as a Mini car. Double Negative is the visual effects house doing it for us.

How did the cast interact with a 2,000lb dog that wasn't there?

We thought about having a puppeteer with tennis balls walking about the set, but the VFX specialists said no. So I asked the props department to build a really big foam dog, which we called Stuffy. It was all for rehearsals, so we could frame the cameras.

When we turned up on set it had been painted blue, as if we were going to key a real dog onto it. The very idea was funny. There were other VFX challenges, like creating Attilan as a city, having the detail and texture right. I think we've broken new ground in what we're able to achieve on TV

Marvel's Inhumans First Chapter opened at IMAX cinemas September 1 for a limited engagement. The show will then premiere as an eight-episode series in the Autumn in the US on ABC, as well as broadcast and streaming partners around the world.



Believe it or not, that's not a real dog...

Hygge.

Who says it needs to be all about lamps and couches?

"What are you doing for your 40th birthday?", everyone asked. We thought about it and decided that since we aren't wild about lavish cakes (although we do love a tasty fastelavnsbolle), we'd celebrate a little differently. Even the *thought* of making new speakers makes us warm and fuzzy, so that's what we chose to do.

Meet the Special Forty: hygge for your ears.

Laurels aren't for resting on, which is why we gave Dynaudio Labs free rein to play. (It gave our accountants a heart attack.) Our only instruction: take our classic tech and see what you'd do differently this time. Their design was nothing short of genius.

They took our classic Esotar 28mm soft-dome tweeter design, put our DSR* precision coating on it, and then **machined an aerodynamic vent** directly into the powerful neodymium magnet. Then they added more damping material and another pressure-release conduit. Take it apart and look behind it: it's a work of art (except please don't; we spent ages putting it together).



We made the drivers' frequencies overlap so we could keep the first-order crossover simple. After all, why add things that might affect the signal if you don't have to?

We called the new tweeter the Esotar Forty, and it's exclusive to this speaker.

We also gave the Special Forty a new woofer, made from our own super-stable Magnesium Silicate Polymer. Its dome is coupled directly to the voice-coil for incredibly precise midrange performance. That's aided by the **new AirFlow Basket** – an aerodynamically shaped chassis that optimises rear airflow and isolates the driver from unwanted vibrations and resonances.

The woofer also has a **custom** magnetic field – one we created in the lab – thanks to a unique hybrid magnet system. It's part ferrite, part neodymium, and it physically manipulates flux to bend it around the voice-coil for greater power and efficiency.



The magnet sits inside the voice-coil (others put it outside). That lets us beam its energy to where we want it to go – not where it wants to go.

Those innovations mean the tweeter can reach down to 1000Hz, and the woofer up to 4000Hz. That overlap means smoother integration between treble and bass, and **performance** that borders on mesmerising.

We don't want to bore you with the maths, so here's the English: the extra air movement and flux containment means we have more control over how the tweeter and woofer move. And that means a more detailed, precise and honest performance. Just what we (and you) want.

This is a simple-looking speaker. Sure. But wait until you see its Grey Birch High Gloss and Red Birch High Gloss finishes. We painstakingly laminate Finnish Birch veneers many, many, many times and cross-cut

them to achieve this striking pattern. Then we use special stains to bring it out even further. Nice, isn't it.



The biggest decision you'll make today: Red Birch High Gloss or Grey Birch High Gloss? (Or just get one of each. You know it makes sense.)

We want to know what you think.

Join our Special Forty group and together we'll take our technology to the next level. That's right: you can be actively involved in shaping the future of our R&D. And you might even find your idea making it into our next-generation speakers. There's a fastelavnsbolle – and warm feelings of hygge – in it for you if you do.

www.dynaud.io/SpecialFortyForum

Special occasion. Special speaker. Special Forty.



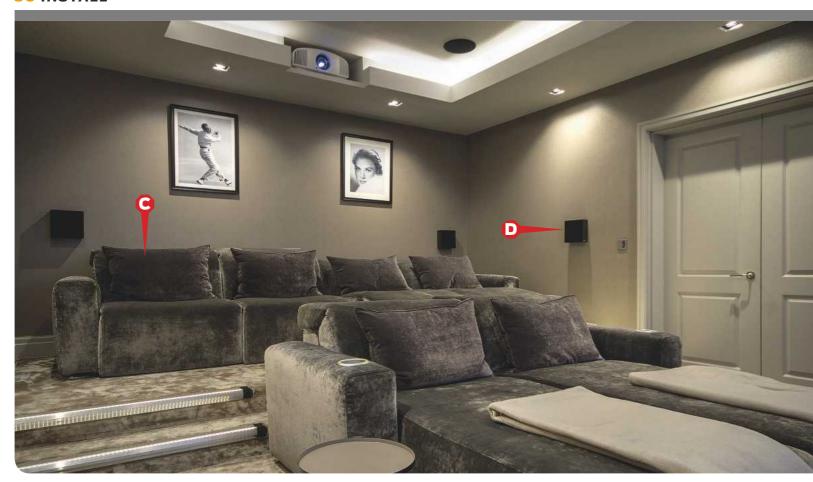
*Wondering what 'DSR' stands for? It's Dynaudio Secret Recipe.
And that's all you're getting out of us – apart from a fantastic tweeter, of course





to highlight the room's artwork.

36 INSTALL



C. Front or back?

Luxury seating, from Colección Alexandra, is spread over two tiers

– a front row with chaise longues, and a back row with four recliners

D. Stay on target!

Surround and rear-back channels are handled by Artcoustic's compact, three-way Target SL on-wall speakers...

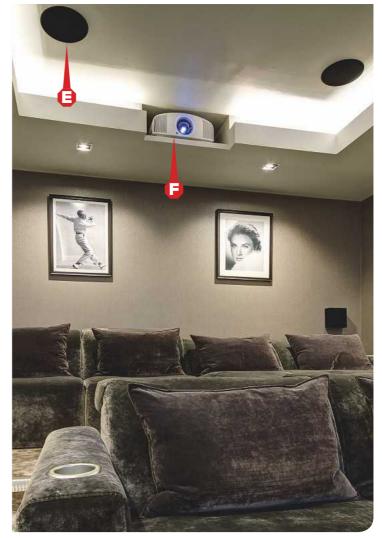
E. Call in an Architect ...while in-ceiling Atmos/DTS:X audio is delivered via the brand's Architect SL 2-1 models

F. Ready for action
Housing the Sony VPL-VW320ES projector within the ceiling pelmet maintains the room's discreet design. 4K and HDR-capable, the PJ can be retained should the cinema owner choose to upgrade to Ultra HD sources

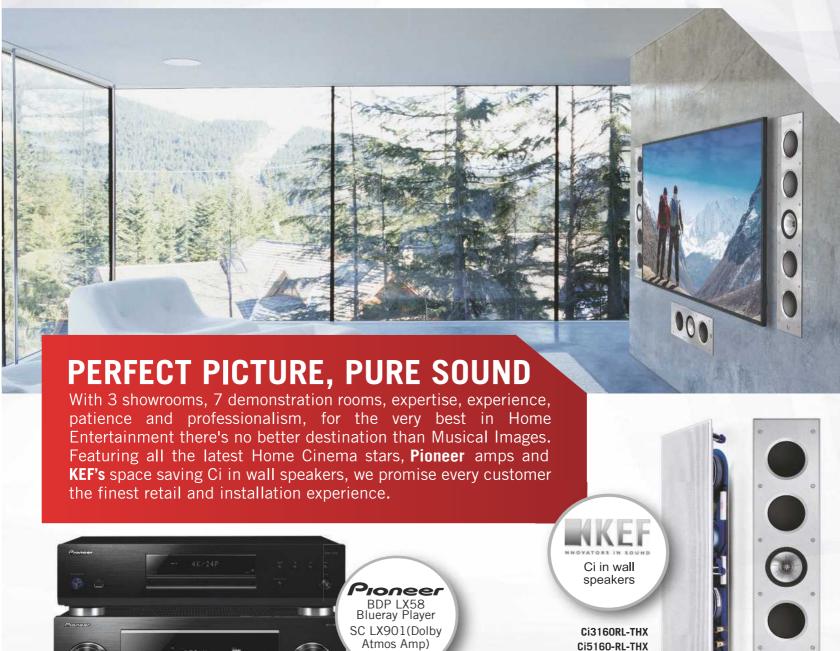
G. Foolproof control

Replacing handsets for player, receiver and projector is this universal remote from Savant









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REVIEWS

→ HARDWARE PANASONIC 55in EZ952 OLED TV SAMSUNG 49in mid-range 4K TV OPTOMA Affordable Ultra HD DLP projector BOWERS & WILKINS 2 x 12in range-topping woofer DENON Entry-level seven-channel AV receiver REL T7i subwoofer with wireless talents BT YouView+ PVR revamped BENQ 720p projector designed for use on the go & MORE!







This is the flatscreen that plasma loyalists have been waiting for, suggests **Steve May**

A touch of Hollywood

Panasonic has stepped up its OLED adventure in 2017, after its one-shot curved debut two years ago. The painfully-pricey EZ1002 may be the brand's hero product this year, loaded as it is with pro-style features that few users will use, but it's the EZ952 which really carries OLED forward. And despite the more conventional form factor, there's less to separate the two models than you might imagine.

AV INFO

55in 4K HDR **OLED TV**

One rung below the EZ1002 in Panasonic's

Philips 55POS9002; Sony KD-55A1

1. A black finish means this TV will blend in to vour cinema room

2. The Bluetooth touchpad is designed for swifter control of apps and 'net content

of a Freeview Play tuner) is a designated 'Pro 4K' offering. Available in both 65in and 55in flavours, it's the smaller set (priced around £2,500) on our test bench.

internationally as the EZ950 - the '2' identifies the use

Like its more expensive stablemate, the EZ952 (known

Yes to THX, no to Dolby Vision

The set arrives with Ultra HD Premium paperwork, and is certified by THX, something of a rarity these days.

Naturally, it supports HDR 10 playback, and HLG compatibility is just a firmware update away. Maybe the biggest talking point regarding its specification is the absence of Dolby Vision support, which perhaps goes against Panasonic's 'true to the filmmaker's vision' marketing motto. A final system nicety which could be overlooked is support for the Control4 Simple Device Discovery Protocol, allowing it to be integrated with home automation systems.

Panasonic's My Home Screen 2.0 platform provides smart connectivity, an update of the original Firefox TV OS. Mozilla might have walked away, but as it's open source Panasonic's own coders have added a few extra features, including additional format support (HDR 10, HLG HDR) for the media player, and a My App hotkey on the handset to be assigned to favourite content.

The platform looks minimal but that also means it doesn't throw up any confusion. It's easy to add extra features to the initial three-tab (Live TV, Apps

and Devices) home screen. On-demand content includes Netflix streams in 4K HDR, Amazon Video 4K (although this wasn't active on our review sample) and YouTube 4K, while having Freeview Play onboard (in addition to a DVB-S tuner) means you get a rollback EPG providing foolproof access to catch-up telly from terrestrial services.

Regards the TV itself, it's styled in Panasonic's usual classy fashion, known here as 'Art & Interior.' The screen (which lacks the anti-reflective Absolute Black Filter of the flagship EZ1002) is framed by a sleek bezel, and sits atop a sturdy (and surprisingly heavy, at 7kg) stand. For much of its bodywork, the EZ952 is just 4mm thin.

Connectivity offers few surprises (four HDMIs, three USBs, Ethernet), although it's good to see Panasonic retaining the SD card slot (still a great feature for digital camera owners).

The TV ships with two handsets, an idea that other brands have moved away from. Choose from a regular IR pointer, graced with a neat metallic finish, or a smaller

touchpad controller. Call me a Luddite, but I much prefer the classic remote.



Spot on

For its OLED sets, Panasonic has called upon the brains of Hollywood to help fine-tune performance, and employed pro-grade 3D Look Up Tables and its top-tier Studio Colour HCX2 processor for colour accuracy. What this means to you in your cinema seat is gorgeous-looking images. The EZ952 combines perfect 2160p detail with pronounced dynamics and a wide colour gamut. In terms of visual balance it's spot on, despite not being the brightest HDR screen around, or even the brightest OLED.

Black reproduction is OLED's calling card, and the EZ952 is a master of the dark arts. Its black level prowess is easy to discern on the letterbox bars of any movie. Dim the lights and you get a genuine appreciation of 21:9 framing. When Kevin Garvey (Justin Theroux) takes to the stage to sing for his life in the season finale of *The Leftovers* S2, he's picked out by a spotlight that perfectly vignettes to pure black. The image is achingly cinematic, aided by excellent reproduction of near-black shadow detail, an OLED area that has seen an improvement this year.

The absence of that Absolute Black Filter is something buyers will probably be happy to live with; any sense of the panel looking a little off-black when the TV isn't on disappears once it's fired up.

'The Panasonic's image is achingly cinematic, aided by excellent reproduction of near-black detail'

Panasonic has a tendency to over-complicate image adjustment, but in reality this screen is well setup straight from the box, although choosing a preset mode is quite a lengthy process. That THX certification means THX Cinema and THX Bright Room presets are offered in addition to Normal, Cinema, True Cinema, Dynamic, Custom and two Professional modes. While Dynamic should be avoided, the Normal mode is a go-to for most viewing, offering a pleasing mix of image brightness with vibrant but not over-chroma'd colour.

The set delivers a full fist of 4K fine detail in all viewing modes – although those THX presets mute contrast and dull definition and are best avoided. Note that when fed an HDR source, the TV switches to an HDR version of whatever preset you have activated.

Dynamic zing

On some screens HDR can look overblown. But here, there's a perfect harmony between peak highlights and contrast depth, resulting in an image that just feels supremely natural and life-like. Episode One of *Iron Fist* (Netflix), with its hero striding the streets of New York, is awash with reflected sunlight that benefits from the dynamic zing of Panasonic's image. At no point during my audition did I really find myself desiring more nits.

One tool to consider is a new HDR Brightness Enhancer. This is designed to boost HDR reproduction in well-lit environments, when HDR details that are noticeable in darker conditions typically go somewhat astray. It's impact is subtle, giving a nudge to some luminance levels but without brightening the entire image. It's not an option when viewing in Normal mode, however.

Colour delivery, as advertised, is a strong point. The TV claims to reach almost 100 per cent of the DCI-P3 colour space, and I have no quibble with the assertion. Hues are deep and smooth, with finessed blends. *Planet Earth II* (Ultra HD Blu-ray) provides the EZ952 with a varied tapestry to play with, and it never falters. There's a lushness to its presentation of green vegetation, blue and orange skies and every shade of animal fur, feather and skin.

The TV also looks terrific with 4K content from Sky Q. Sky's broadcasts and downloads may be standard



dynamic range and REC.709, but the sheer exuberance of the picture is delightful. Premier League football in UHD on Sky Sports is a jaw-dropper, particularly the detail of the crowds. You don't look at the picture, you peer into it.

Regular HD content scales well to this 55-incher, too, Panasonic's processing effortlessly uplifting SDR to make the most of the panel's capabilities. The standard Blu-ray of *Point Break* (remake) looks sensational, with the EZ952's colour vibrancy and black level depth making for an extremely well-balanced and inviting image.

Of other picture tweaks to play with (the TV sports the usual brightness, tint, contrast, sharpness, colour



temperature and colour adjustments, plus colour management and gamma tools under an Advanced Settings tab), there's Panasonic's Intelligent Frame Creation for image smoothing, and I still have reservations about it.

Min, Mid, and Max settings are offered, as well as Off, plus Custom for bespoke calibration of Blur Reduction and Film Smooth options. What you choose is always a matter of taste, but I'd suggest beginning with IFC deactivated and then stepping up to Minimum, which is generally artefact free. On Mid or Max, processing flaws become all too apparent, and are joined by the dreaded soap opera effect.



SPECIFICATIONS

3D: No **4K:** Yes. 3,840 x 2,160 **HDR:** Yes. HDR 10; HLG **TUNER:** Yes. Freeview Play; HD satellite **CONNECTIONS:** 4 x HDMI inputs (v2.0 with HDCP 2.2); minijack adaptor for component and composite AV; optical digital audio output; Ethernet; 3 x USB; SD card slot; headphone output **SOUND:** 40W (10W x 2 + 10W x 2) **BRIGHTNESS (CLAIMED):** N/A **CONTRAST RATIO (CLAIMED):** 'Ultimate Contrast' **DIMENSIONS (OFF STAND):** 1,230(w) x 766(h) x 275(d)mm **WEIGHT (OFF STAND):** 17.5kg

FEATURES: Built-in Wi-fi; USB multimedia playback; SD card multimedia playback; OLED Superb Motion Drive; Studio Colour HCX2 Processor; THX certification; Ultra HD Premium certification; My Home Screen connected platform

PARTNER WITH



PANASONIC DMP-UB900:

First launched in 2016 and now selling for around £380, Panasonic's best-specified 4K disc player (also THX certified) still impresses. Video talents are accompanied by a full 7.1-channel analogue output.

There's also a Clear Motion setting, which maintains moving detail clarity but at the expense of pronounced – and distracting – flicker.

The least noteworthy aspect of the EZ952 is its sonic performance. While the EZ1002 flaunts its pretty looking and Technics-designed Dynamic Blade soundbar, this model features more down-to-earth (and downwardfacing) internal two-channel speakers. While acceptable for everyday viewing, they don't warrant particular applause. There's plenty of volume delivered by 40W of grunt, but you'll not feel inclined to crank it up.

Thankfully, if you intend to complement the EZ952 with a standalone sound system or soundbar solution, this busking performance won't really be a concern.

A new lease of life

The TX-55EZ952 may not be the brightest HDR screen available right now, and it doesn't tick every feature box (notably Dolby Vision playback and soundbar-assisted audio), yet the sheer quality of its images is undeniable. Pictures have punch and verve, with excellent detail and wonderful dynamics. It looks fabulous with UHD Blu-ray, but is an equally fine partner for all manner of content. If you have a large collection of 1080p Blu-rays, you'll find they get a new lease of life here.

I also tend to think the conservative design is a plus point. The set integrates well with a larger home theatre system, while its smart platform proposition is comprehensive.

If you're a plasma owner who has been waiting for a convincing reason to trade up to UHD, then the EZ952 could well be the set you've been waiting for. This is a premium performer that makes every source look better. The EZ952 doesn't just build upon Panasonic's proud plasma legacy, it smashes it ■

HCC VERDICT



Panasonic TX-55EZ952

→£2,500 → www.panasonic.co.uk

WESAY: Sumptuous image quality makes this Hollywood-tuned OLED the ideal home theatre screen. It looks equally fabulous with HD SDR and 2160p HDR.

- 3. The EZ952 uses a robust pedestal stand
- 4. HDMI inputs are split between sideand rear-facing, with one supporting ARC

Black reproduction is OLED's calling card, and the EZ952 is a master of the dark arts. Its black level prowess is easy to discern on the letterbox bars of any movie. Dim the lights and you get a genuine appreciation of 21:9 framing. When Kevin Garvey (Justin Theroux) takes to the stage to sing for his life in the season finale of *The Leftovers* S2, he's picked out by a spotlight that perfectly vignettes to pure black. The image is achingly cinematic, aided by excellent reproduction of near-black shadow detail, an OLED area that has seen an improvement this year.

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First launched in 2016 and now selling for around £380, Panasonic's best-specified 4K disc player (also THX certified) still impresses. Video talents are accompanied by a full 7.1-channel analogue output.

There's also a Clear Motion setting, which maintains moving detail clarity but at the expense of pronounced – and distracting – flicker.

The least noteworthy aspect of the EZ952 is its sonic performance. While the EZ1002 flaunts its pretty looking and Technics-designed Dynamic Blade soundbar, this model features more down-to-earth (and downwardfacing) internal two-channel speakers. While acceptable for everyday viewing, they don't warrant particular applause. There's plenty of volume delivered by 40W of grunt, but you'll not feel inclined to crank it up.

Thankfully, if you intend to complement the EZ952 with a standalone sound system or soundbar solution, this busking performance won't really be a concern.

A new lease of life

The TX-55EZ952 may not be the brightest HDR screen available right now, and it doesn't tick every feature box (notably Dolby Vision playback and soundbar-assisted audio), yet the sheer quality of its images is undeniable. Pictures have punch and verve, with excellent detail and wonderful dynamics. It looks fabulous with UHD Blu-ray, but is an equally fine partner for all manner of content. If you have a large collection of 1080p Blu-rays, you'll find they get a new lease of life here.

I also tend to think the conservative design is a plus point. The set integrates well with a larger home theatre system, while its smart platform proposition is comprehensive.

If you're a plasma owner who has been waiting for a convincing reason to trade up to UHD, then the EZ952 could well be the set you've been waiting for. This is a premium performer that makes every source look better. The EZ952 doesn't just build upon Panasonic's proud plasma legacy, it smashes it ■

HCC VERDICT



Panasonic TX-55EZ952

→£2,500 → www.panasonic.co.uk

WESAY: Sumptuous image quality makes this Hollywood-tuned OLED the ideal home theatre screen. It looks equally fabulous with HD SDR and 2160p HDR.

- 3. The EZ952 uses a robust pedestal stand
- 4. HDMI inputs are split between sideand rear-facing, with one supporting ARC

sofa without accidentally engaging the equivalent of a 1980s 'loudness' button.

Like most apps, B&W admits that it's still a work in progress. At time of going to press, while the app would load and run the basic subwoofer controls on most recent iOS and Android operating platforms, the room EQ feature was currently only available on iPhone6 (and later) hardware. This is due to the methodology of calibrating the mic. A solution to run the room EQ part of the app on other devices is forthcoming.

The whole DB1D package is supplied with a chunky mains cable and a choice of three sets of feet – spikes, short feet and tall, soft rubber cones. The latter would be a real no-no on a traditional single-driver sub but the DB1D's opposing drivers cancel out lateral movement and the cabinet stays perfectly still. Give it a nudge by hand, though, and it wobbles around like a giant, cubic jelly.

Getting your sub in the right position in the room for best performance can be something of an art form. That challenge is reduced by a decent room EQ system for the subwoofer, and even more so by bipolar models that radiate sound in two directions. The DB1D then is supremely easy to position.

I chose a side of the room slot in front of the main left/right speakers and backed up the sub square to the wall. The cable connection panel is not recessed, so using big XLR plugs does mean that the DB1D won't go flush. Probably a good thing sonically, too.

Setup using the app took about three hours. That was two hours and 58 minutes of wondering why I couldn't find the room EQ option on a Samsung S8 – and two minutes of actually setting up and EQing the DB1D with a borrowed iPhone.

Effortless resolution

Within the context of my reference 11-channel Atmos setup the B&W DB1D proved sublime. Not simply for its visceral impact or gizzard-rending power – any large driver, large amplifier, large cabinet sub can do that – but for its effortless resolution of LF detailing. From subtle atmospherics to explosions, you can hear bass effects as a crisp mash-up of different component parts of the overall sound, not simply a largescale monotone wave of LF energy.

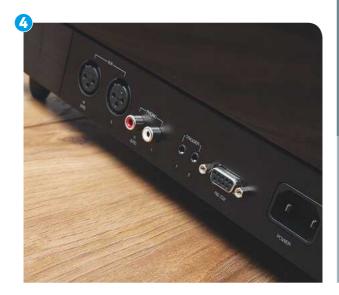
'A faultless performance... fast, detailed and articulate without any hint of bloom or bass overhang'

The remake of *Ghost In The Shell* (Ultra HD Blu-ray, Dolby Atmos) might be a shallow puddle of the original anime's deep existential themes, but it's still a damn fine action yarn. Major's swan dive off the building in the opening sequence sees the DB1D deliver bass effects as a high-speed narrative that really drives the action along. From gunshots to crashing glass and from the deep metallic sound of weapon mechanisms cycling to Batou's grumbling voice, the DB1D is genuinely faultless. It's fast, detailed and articulate without any hint of bloom or bass overhang.

Stepping back to 2004 and Manga's *Ghost In the Shell:* Innocence animation (that's *Ghost In the Shell 2* if you are







American), the DB1D is no less impressive. While the Blu-ray transfer looks a bit 1990s, the DTS-HD MA soundtrack is stunning. The festival sequence, complete with giant mannequins and hot-air balloons, has a tinkling oriental backdrop of Ting-Sha cymbals and a hunting tune that the DB1D gently underpins.

The tune builds with a raft of ultra-deep Kodo drumming that kicks in with an accelerating beat. B&W's top-of-the-range woofer barely breaks into a sweat as the sound pressure builds to breath-taking intensity.

'A real high-fidelity woofer capable of extracting hitherto concealed detail and dimension from movies'

Each beat is delivered with sledgehammer impact. Yet this sub goes much further than most in describing the drum's dimensions and tonal character, too. All this is achieved while maintaining the scene's ambience of open space compressed by looming buildings and a dense, rain-soaked dystopian atmosphere. It is incredibly impressive.

And the DB1D does fun, too. With the Atmos soundtrack of Fantastic Beasts and Where To Find Them (Ultra HD Blu-ray, my wife made me watch it...) the sub's LFE output integrated seamlessly into the overall mix. Through the dialogue and general scenes, you might think it's not being used. Yet switch the DB1D off and the scale of the whole soundstage gets noticeably smaller and more shut-in.

Of course, when magical monsters go on the rampage, the DBID gets beastly itself. From Newt's mating dance to attract the huge Erumpent to the massive sound effects of the Obscurial, this sub delivers the goods with weight, scale and control. And with the demo-worthy opening beats of WW2 drama *Unbroken* (Blu-ray, Atmos), it has the ability to dig deep to make the heavy artillery of the B24 bomber sound terrifyingly real.

Audiophile experience

The DB1D's uncanny subtlety and ear for detail makes it a first-class subwoofer for music too, as you might expect of a product that B&W suggests using with its audiophile floorstanding speakers. Different low-frequency

SPECIFICATIONS

DRIVE UNITS: 2 x 12in Aerofoil drivers in opposing configuration **ENCLOSURE:** Sealed **FREQUENCY RESPONSE (CLAIMED):** 10Hz-350Hz **ONBOARD POWER:** 2,000W Hypex Class D **REMOTE CONTROL:** No. Via B&W DB Subwoofer app **DIMENSIONS:** 429(w) x 460(h) x 410(d)mm **WEIGHT:** 43kg **FEATURES:** 2 x phono inputs; 2 x XLR inputs; 2 x 12V triggers; RS232 D-connector; app-based EQ/control

PARTNER WITH



B&W 804 D3: The junior floorstander in the latest 800 Series Diamond range (£6,750 per pair) uses a Diamond dome tweeter, Continuum cone midrange and two Aerofoil bass drivers. Add in 805 standmounts and HTM2 centre for a premium 5.1 set.

balances in recordings often make using a sub a tortuous procedure with music, but this has the breadth and articulation to cope.

Stick on some dance tunes and it will rock out solid chunks of bass beat so tight they have sharp edges. Yet it works equally well with more sophisticated practitioners of low-frequency entertainment. Mendelssohn's *Hebrides Overture* in glorious 5.1 (DVD-Audio) is given a huge soundstage thanks to the DB1D, with a breathy and spacious quality to the bassoons and immense power from the timpani section.

My love of this premium sub is not without some minor caveats, though. For best results, you need to run the setup and EQ on the sub before you run your AVR's overall speaker balancing antics, as the sub's EQ will likely reduce its output volume. The DB1D seems to have fairly low sensitivity to line-level input signals too, requiring a +8dB gain over the main speakers in my Marantz AV8802A setup. And as the sub's master gain in the app is only up to +3dB maximum, those who like their bass effects coming in much hotter than the main channels might be left wanting.

Made for movies

Yet the DB1D is not really about gung-ho LFE. It is about fast and accurate bass to complement the movie rather than drown it. In fact, just a few discs in and my usual penchant for dual woofers was put to bed by this glamorous bass bin. Unless you must have your LFE much louder than the main speakers, you won't need a second unit for sheer power, and the single point source for bass allows the DB1D's excellent electronics to elicit outstanding control over the room.

The result is a real high-fidelity subwoofer capable of extracting hitherto concealed detail and dimension from movie bass effects. It is truly sublime. Combine that with easy placement, slick setup, simple and effective smartphone based EQ and 2,000W of power on tap, and the DB1D really is the Dog's... ■

HCC VERDICT



B&W DB1D

⇒£3,750 → www.bowers-wilkins.co.uk

WESNY B&W's flagship subwoofer delivers superlative bass performance with unrivalled LF detail, simple setup and an outstanding app-based EQ.

- 2. B&W also supplies its woofer with spiked feet
- 3. Lurking within the DB1D is a 2 x 1,000W Hypex Class D amp
- 4. XLR inputs are offered for those with compatible hardware



Sony's Dolby Atmos AV receiver debut is no phantom menace, reports **Steve May**

Back with a bang

Sony's first AVR to support Dolby Atmos has arrived, and it's been worth the wait. I originally heard the STR-DN1080 in pre-production guise at the 2017 CES in January, and have been impatiently waiting to give the final version a blast. It may ostensibly look like just another entry-level immersive amp, but there's some clever engineering at work here which sets it apart from rivals.

Admittedly, tipping the scales at just under 10kg, the STR-DN1080 won't bow your flatpack AV furniture, but the build quality is smart enough to impress. Personally, I think the fascia still looks over-busy (despite a clean-up) with its reams of words, two rotary knobs, a full-size headphone jack, setup microphone input and USB port, but the hairline front-fascia finish is suitably premium.

In contrast, the back panel is relatively spartan, although all the good stuff is here. We get six HDMI inputs, all of which are HDCP 2.2 enabled. Set these to 'Enhanced' in the HDMI menu if your source is 4K 60p 4:4:4 or thereabouts.



AV INFO

PRODUCT: Seven-channel Dolby Atmos/DTS:X AV receiver

The flagship Sony model in the UK

Yamaha RX-A670; Onkyo TX-NR575

1. Sony favours an asymmetrical front-panel design

2. Compared to many rivals', this handset is button-light...

There are also two HDMI outputs which can be switched or run simultaneously. This in/out bank is supported by two analogue AV inputs, plus a pair of stereo phonos and two digital audio inputs (one each of coaxial and optical). Surprisingly, you even get a full set (7.1) of channel pre-outs.

In addition to Ethernet and Wi-Fi, there's Bluetooth with NFC for guick pairing, and Airplay. The Bluetooth implementation supports both transmission and reception, which means you can pair the AVR with Bluetooth headphones for late-night listening. Useful.

The remote control is a streamlined IR offering. It feels good in the hand, but seems to require an inordinate number of button presses to achieve results.

Ghosts in the machine

The STR-DN1080 is a seven-channel design, which translates to an Atmos implementation of 5.1.2. But that's not the whole story. What makes this model rather special is the provision of phantom rears. This means you can run twin Atmos height channels but still benefit from the sense of a flat seven-channel array.

Sony's power output is quoted at 7 x 165W into 6 Ohms, although this is a 1kHz, single-channel measurement with 0.9% THD.

When it comes to decoding, there are no surprises. The STR-DN1080 supports Dolby Atmos and DTS:X plus all the subsets. Atmos can be delivered via TrueHD or Dolby Digital Plus, making it compatible with Sky's Atmos services, as well as those from BT TV.

Using the AVR proves a little different to the norm. It relies on its user interface more than many rivals, which I found a bit of a bind everyday.

The UI – a stripped graphic with Watch, Listen, Custom Presets, Sounds Effects, Zone Controls and Setup segments – will be familiar to previous Sony owners. Select Watch or Listen and you get selectable icons and inputs; these can be renamed to match your system configuration. An Options button prizes the lid off further, so that you can customise every input in terms of what HDMI/audio source the AVR should look to. This is nicely executed, and easy to configure.

The Listen column mixes physical inputs with Bluetooth, networked audio sources and Spotify. The receiver also boasts Chromecast Built-In. Rapidly gaining traction with audio manufacturers, this allows owners of compatible smartphones to throw content directly to the receiver, as well as provide integration with the Google Smart Assistant. However, this provision isn't really as helpful



50 REVIEWS



as it may at first appear. The STR-DN1080 doesn't support Chromecasting of video or photos, only audio sources. For someone increasingly intertwined with the Google ecosystem, this half-baked approach isn't going to fly. A far more satisfying solution remains connecting a Chromecast dongle to one of the AVR's HDMI inputs. Then you can mirror integrated functionality, but add photocasting and video streaming from supported apps like YouTube.

As a media streamer, the receiver works well. DLNA compliant, it latched on to my networked NAS and Twonky server, and plays 24-bit FLAC and WAV to 192kHz, as well as DSD up to 5.6 MHz, 5.1.

Automatic for the people

Setup is helpfully automated. Sony's proprietary Auto Calibration software has always been unusually efficient, and here can be found in an updated iteration with a 31-band graphic EQ and a little boomerang-shaped stereo calibration mic.

The process sets phase, distance, level and positioning of your speakers with a few squeaks and squawks. Don't take the results as gospel. My first run-through really didn't sound that great. After listening for an hour or so, I repeated the process, shifting the microphone location (actually balanced on top of my head), and got an altogether more acceptable result.

Once calibrated, you need to locate those phantom rears. There are two options – each intended to compliment the position of your physical speakers – plus filtering: Full Flat, Engineer or Front Reference. Post-calibration, the Engineer filter demonstrated an edge to dialogue that borders on spitchy. The Full Flat



filter had a better balance, helped along with a little tweaking of the onboard EQ. You're also given the option of adjusting the wavefront output from the main stereo speakers, said to give a wider sweet spot and 'more natural' sound effect. I'm not sure that it made any appreciable difference in my room, but it certainly wasn't objectionable.

This isn't a warm receiver. It won't welcome you home with a hug and mug of cocoa after a hard day's work. But it is utterly immersive. When John Wick checks out of the Continental (*John Wick: Chapter 2*, Blu-ray, Dolby Atmos), the score builds in intensity as phones ring around

'As for those phantom rears, I found Sony's trickery actually has a profound effect on the soundstage'

New York, and Keanu is forced to demonstrate just how deadly he is with a pencil. The soundfield is awash with precision-placed thuds, shots and squelches.

Game Of Thrones episode Blackwater (Blu-ray, Atmos) is similarly enveloping. Before Tyrion signals for the single arrow which ignites the Wildfire holocaust in King's Landing bay, the Sony crafts a distinct wraparound clattering of wooden bows. I was firmly in the thick of the action. The subsequent explosion is fast and deep.

Of course, there are benefits to Atmos beyond portraying native object-based audio. The system's Dolby Surround upscaling can be wonderfully effective in extending a soundstage. In *Game of Thrones'* season seven episode *The Queen's Justice* (Sky Atlantic HD, Dolby Digital 5.1), when Jon Snow first lands at Dragonstone he's greeted by Tyrion Lannister on the beach. The upscaled mix has the sound of sea crashing around, seagulls squawking overhead, with dialogue kept locked to the centre channel. It's naturalistic and effective. When a dragon soars in from the right, the whoosh is fierce, the receiver's linear wideband power amplifiers demonstrating a dramatic transient delivery.

By default, the STR-DN1080 set all my speakers as large. Given that my listening room has three subwoofers (two passive driven by a stereo amp, the other active), I opted to set my main L/C/R as small, as this allows control of the crossover to the sub(s). Disappointingly, this is limited to 10Hz steps, but after a while I found myself settling on a variation of the classic THX configuration, crossing over at 80Hz, leaving the woofers to do the heavy lifting. It's worth experimenting with this, regardless of the physical size of your front boxes.

So what of those phantom rears? It might be easy to dismiss the technology as a gimmick, but I found Sony's post-processing engine actually has a profound effect on the soundstage and fundamentally separates this receiver from straight 5.1.2 models. With 360-degree panning effects I was distinctly aware of sonic movement behind my head; fleeting steerage seems real not imaginary. The end result sits somewhere between basic Dolby Atmos and the nine-channel deployment found on high-end models.

Another toy is for those whose listening room isn't able to achieve the optimum ITU-R circular speaker location. Powerful 'speaker relocation' processing and A.P.M (Automatic Phase Matching) will virtually re-orientate your boxes.

SPECIFICATIONS

DOLBY ATMOS: Yes DTS:X: Yes THX: No MULTICHANNEL INPUT: No MULTICHANNEL PRE-OUT: Yes. 7.1 POWER OUTPUT (CLAIMED): 7 x 165W (into 6 Ohms) MULTIROOM: Yes. Zone 2 AV INPUTS: 3 x composite; 2 x digital audio (1 x optical and 1 x coaxial) HDMI: 6 x inputs; 2 x outputs (all v2.0) VIDEO UPSCALING: Yes. 2160p COMPONENT VIDEO: No DIMENSIONS: 430(w) x 156(h) x 331(d)mm WEIGHT: 9.7kg

FEATURES: Ethernet; Wi-Fi; Bluetooth with NFC/LDAC; USB; media file playback includes 192kHz/24-bit (FLAC, ALAC, AIFF and WAV) and DSD (to 5.6MHz, multichannel); Phantom rear processing; centre speaker lift up; in-ceiling speaker mode; Auto Room Calibration with D.C.A.C EX; DSEE HX upscaling; Chromecast Built-In; Spotify Connect; AirPlay; headphone output; 2 x subwoofer pre-outs; Bluetooth transmission; Sony Music Center multiroom support

PARTNER WITH



SONY UBP-X800: Cosmetically similar, Sony's UHD Blu-ray player also makes for a fine audio source to partner the DN1080 receiver. Super Audio CD and DVD-A playback are on the spec sheet, bolstered by a premium construction. Pricing is around £330.

Musically this Sony is highly entertaining, both with stereo sources and multichannel. A Dolby Atmos-encoded performance by Unamas: Strings Quintet, of Schubert's *Symphony No 14 in D Minor: Death and the Maiden*, is full of verve and orchestral attack. The amp doesn't strain or coarsen under volume, while retaining its analytical sound.

Sony uses 32-bit DSP processing on HDMI inputs and network sources alike, outputting 32-bit PCM to a newly designed DAC. DSD sources can be sent natively to the DAC, side-stepping the DSP chip.

It's worth noting that there's a perceivable difference between the digital and analogue inputs, the latter enthusiastically rewarding high-quality sources. An MQA encode of the choral Schola Cantorum version of Benjamin Britten's *Hymn to the Virgin*, delivered via analogue from a Bluesound Vault, is thick with atmosphere. Led Zeppelin's *In My Time of Dying* (also MQA, *Physical Graffiti*) is gritty, organic and dirty; just as it should be.

Can an AVR sound like an upmarket stereo amp? Play Wilco's *Rising Red Lung* (MQA, *The Whole Love*), which is close mic'd and intimate, and you know it can.

Brilliant value

There are aspects to the STR-DN1080 that disappoint. The user interface feels a little needy, the cosmetic design remains fussy, and the vaunted Chromecast integration isn't the killer feature it should be. Yet from a generous helping of HDMIs, to the surprisingly effective implementation of phantom surround DSP, this is a brilliant-value offering. Sonically, it has power and precision, making as much of atmospherics as raw thunder, and sounds musical too. Overall, consider it a stonking home cinema buy

HCC VERDICT



Sony STR-DN1080

→ £550 → www.sony.co.uk

WESAY: Not just another entry-level Dolby Atmos AVR, this Sony innovates in surprising ways and delivers the best immersive experience in its class.

3. All six HDMI inputs support 4K HDCP 2.2...

4. ...although there's no HDMI input on the front-panel



Ed Selley discovers if REL's 8in T7i subwoofer is perfectly suited to running in tandem

Does it take two to tango?

They may be only responsible for a select part of the audio we hear in a film mix, but AV-hedz have a love of subwoofers. In response to this, there are a few companies that concentrate on nothing else. REL is one of them, and has developed some very specific ideas about how sub-bass should be created.

The T7i is a case in point. This is the middle model of the Serie T range, which forms the entry point for REL's conventional subwoofer lineup. The 'i' denotes that it is an improved version of the preceding T models, but the nature of some of the changes are sufficiently extensive it might have been fair to describe it as a new beast.

The T7i still uses an 8in main driver partnered with a 10in passive radiator, but the positions have been swapped around so the active driver is now forward-firing while the radiator moves to the underside.

The drivers are also heavily revised. They use doped paper as a basic material but REL has changed the paper type to make the driver stiffer and lighter. The active driver then has a metal section that overlaps much of its visible portion, which adds further rigidity (and makes for a fine place to stick a company logo). REL has placed great emphasis on the stiffness of the drivers because it has a considerable effect in turn on their control and response, which results in them starting and stopping faster than before.

The subwoofer cabinet has been beefed up too and is now made from inch-thick MDF, which results in a very rugged enclosure indeed.

REL fits integral feet that give the required clearance for the lower radiator. While still not the best possible choice for a suspended floor, this should make the T7i easy enough to place as there is no bass port needing to be accommodated. It's also finished to a high standard for a device that sells for £850.

Some aspects of the T7i's design are more identifiably REL. The presence of cooling fins on the rear panel is a clear indicator that there's no Class D amplifier present here. Instead, a 200W class AB amp, complete with burly hand-wound toroidal transformer, provides the required power.

As is tradition with REL subwoofers, alongside the standard phono input for an LFE signal, you'll find a Neutrik Speakon interconnect that attaches directly

to the L/R speaker terminals of an AVR/processor, offering a high-level input. This enables the sub to be used with two-channel material (no LFE channel), as it takes the bass info that's supplied to the front pair. Yet REL also lets you use both the high-level and LFE inputs simultaneously (you'll need to set your speakers to 'large' on your AVR), and suggests this is the best installation, allowing you to switch between two-channel and multichannel listening, and feeding the T7i additional bass info during the latter.

There's no onboard EQ, physical remote or funky app to play with here, but the back panel controls do include separate volume adjustment for the high- and low-level inputs, in addition to crossover dial and phase switch.

Doubling up

So why have we photographed two of them? REL's argument is that using a pair of subwoofers allows for a more even spread of low-end energy in most rooms. Using two subwoofers means they can be placed in such a way as to avoid standing wave issues and the simple expedient of having double the radiating area should allow for a more effortless reproduction of low-frequency output. Plus every AVR worth its salt these days has dual subwoofer pre-outs, so it'd be a shame not to use them...

To make the employment of a second unit more practical, REL has developed an optional wireless connection module for the Serie T range. Called the Arrow (as a nod to the Longbow module of the Serie S, Habitat and No.25 subs), this takes the form of a transmission unit that connects to the LFE or speaker output of your AV processor (again, a simultaneous connection is possible), and a receiver module that attaches to an RS232 connection on the sub's rear. REL says that the connection is lossless and lag-free. At £200, the Arrow adds a sizable chunk to the cost of a T7i, but I found it worked absolutely fine and stopped me tripping over a trailing wire. Pairing is quick and easy, and the range is suggested to reach over 13 metres.

AV INFO

8in subwoofer with 10in passive radiator

ONSITION:

Middle of the Serie T range, which is REL's entry-level

PEERS:

SVS SB-1000; Velodyne Impact 10; Artison Nano 1

1. Four chunky feet raise the REL enough to let its underside passive driver breathe

I did, however, begin my testing with a single T7i connected to my AVR via conventional phono cable.

Ready, set, go...

Unlike some more brash woofers, this 8in/10in combi doesn't immediately grab you by the lapels and shake your brains out. And, compared to the gut-rattling fury of something like GoldenEar's SuperSub X [see *HCC* #272], the T7i simply doesn't go as deep (REL claims a 30Hz response) or load the room as effectively, but it counters with an agility to its performance. Indeed, spend a little time with the T7i and its attributes come to the fore.

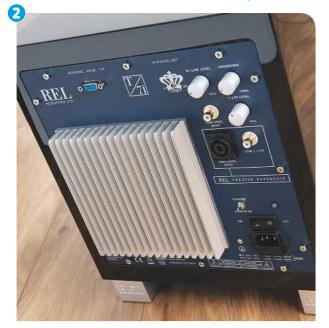
Watching *Patriots Day* (Blu-ray, DTS-HD MA) allows the T7i to shine. The subwoofer is able to handle the grizzly bombing scene itself with effective depth and impact, managing to be subsonic at the very lowest part of its frequency response, and this lends the blast a visceral realism that supports the onscreen imagery.

This, of course, is the very minimum of what we should expect from a subwoofer at this price point. Where the T7i really starts to show its talents is when the explosion ends and the hunt begins. Trent Reznor's brooding score has plenty of bass energy in it and this woofer integrates this

'The T7i partners my speakers superbly, delivering Patriots Day's bassy score in an effortless fashion'

beautifully into the dense and atmospheric soundtrack. Paired with my satellite speakers needing a 90Hz crossover, the REL partners superbly and delivers the bottom registers in an effortless fashion. A hallmark of a good sub is that you gain a real appreciation of what it is doing when you turn it off, and the REL is an especially fine example of this.

The speed of its driver array means that it excels with complex low-frequency material. The final live performance of *Caravan* in *Whiplash* (Blu-ray, DTS-HD MA) is something of a torture test for subwoofers, and a scene that I've watched countless times. There's very little in the



SPECIFICATIONS

DRIVE UNITS: 1 x 8in front-firing paper/aluminium active driver; 1 x 10in down-firing paper passive driver **ENCLOSURE:** Sealed **FREQUENCY RESPONSE (CLAIMED):** 30Hz-200Hz **ONBOARD POWER:** 200W Class AB **REMOTE CONTROL:** No. **DIMENSIONS:** 429(w) x 460(h) x 410(d)mm **WEIGHT:** 43kg **FEATURES:** LFE input; low-level input; high-level input (via supplied Neutrik Speakon interconnect); compatible with optional (£200) Arrow wireless transmission system

PARTNER WITH



WHIPLASH: Not only is Sony Pictures' Blu-ray one of Ed Selley's audition platters, it's a cracker of a movie too, taking the world of jazz drumming as a jumping off point for an emotionally draining exploration of the human spirit.

way of overtly aggressive bass but as Miles Teller's drumming gets ever more frantic, the need to deal with dozens of separate drum beats, keeping them distinct from one another, is paramount. With this sequence, the T7i puts in one of the finest performances I've heard.

Even without the high-level connection in use (wilfully ignoring REL's manual that declares 'you will almost always' hookup this way), this is a seriously accomplished device. And even if you choose, as an LFE purist, not to run a simultaneous input for movie playback, you should certainly experiment with the high-level connection for conventional two-channel audio. I found it improved the sub's integration with my L/R speakers and sense of speed.

So, what happens when you double them up? My listening room has the benefit of being fairly free from standing wave issues so there is little to be gained from trying to 'fill in' a part of the room, but running the two units – one via the Arrow wireless module and one via conventional wired connection – proves illuminating. The field assault sequence in Fury (Blu-ray, DTS-HD MA) gains some of the heft that it lacks with a single T7i. But, importantly, this extra impact isn't achieved at the expense of the precision and detail that is present with a single woofer. The sound of the tanks is still reproduced as a medley of distinct effects – engines, tracks and gunfire – and this helps to make for a more immersive and believable performance.

The need for speed

Even without the Arrow module, two T7is is a fairly significant expense, and you have to consider the additional space that two – even fairly compact – subs would need over a single chassis. But the benefits of such a setup do make themselves felt. As a double act, this is a wonderfully detailed and agile sub-bass system that mixes impressive heft and impact with speed and nuance. A single T7i shows many of the same admirable traits, and if you need a sub for music, its desirability increases

HCC VERDICT



REL T7i

→ £850 each → www.rel.net

WESAY: Fairly costly for a smallscale woofer but performance is commensurate with the price. Fleet of foot and detailed, it puts in a fine and realistic performance with movies and music.

2. The rear-mounted heatsink keeps the T7i running cool



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Best Home Cinema Winner 2015

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58 OPTOMA UHD60/£2,400

HOME CINEMA CHOICE OCTOBER 2017



Optoma jumps aboard the 4K HDR bandwagon with a well-priced model that has **John Archer** salivating

Stepping up to a new level

Native 4K resolutions and projectors go together like the proverbial horse and carriage. After all, it's a simple fact that the bigger the image, the more effective all those extra pixels become. Unfortunately, true 4K projectors have generally been tied to eye-wateringly expensive price tags. Optoma's UHD60 is part of a new breed of models aiming to set that right.

The UHD60 costs £2,400. This puts it squarely in lower mid-range territory for the home cinema projection market, yet it not only delivers a resolution that America's independent Consumer Technology Association (CTA) classes as genuine 4K, but also offers support for high dynamic range (HDR) playback.

The specifications suggest it's not merely paying lip-service to HDR, either. Light output is rated at a very high 3,000 Lumens, joined by a dynamic contrast figure of 1,000,000:1. Looking good on paper is one thing, of course – but it soon becomes apparent that Optoma's first 4K beamer is a potent projector.

Nice to meet you

Right from the off the UHD60's images stand out from the same-priced competition thanks to an impressive blend of sharpness, detail and HDR-ready brightness.

Where the resolution is concerned, the beautiful detailing of the (non-CGI) bar and living quarters of *Passengers* on Ultra HD Blu-ray really does look like the 4K deal. This is perhaps surprising given that the single DLP chip inside the UHD60 doesn't carry one digital mirror device (DMD) for each pixel, but instead creates its 4K picture by combining processing with 'flashing' each mirror multiple times for each image frame. This method sounds similar to the 'pseudo' 4K pixel-shift approaches deployed by JVC and Epson on their relatively affordable home cinema PJs, but the reality is that the UHD60's pictures appear cleaner and higher in resolution than those of any 'pseudo' 4K rivals. And who am I to argue with the CTA?

Passengers' frequently lush colour palette is handled with care. Jennifer Lawrence's irresistibly radiant skin tones look suitably immaculate, with no hint of striping or blocking noise. And there's also enough fine pore detailing to avoid the plasticky, mannequin-like look that skin tones

can take on with 4K projectors that don't have the colour handling prowess to match their pixel count.

The edges of highly-defined 4K objects in *Passengers*, such as Michael Sheen's robotic barman and the shelved bottles behind him, are projected crisply and cleanly, with no sign of any ghosting or shimmering issues. The sharpness remains generally intact as the barman slides — with increasing violence as the film progresses—left and right across his tightly proscribed space.

While buyers will want to feed the UHD60 a 4K-rich diet, it doesn't fall short when upscaling Full HD Blu-rays. Detail and pixel density are added without creating distracting artefacts around object edges, jagged lines, or motion blur.

Bright star

The biggest and best surprise about Optoma's UHD60, though, is how well it handles HDR. *Passengers* is a particularly challenging UHD BD where HDR is concerned, with an unusually extreme light range from the inky blacks of space to the blazing brightness of the spaceship's many artificial light sources. The UHD60 copes well for such an affordable projector, offering a considerable stepup in peak brightness at the lighter end of the spectrum, and providing slightly more insight into dark areas too.

To clarify the latter point, this projector doesn't possess the world's greatest black level response. Dark scenes, as with the likes of Acer's V7850 [HCC #276] appear with a gentle grey pall over them during both HDR and SDR playback. Yet the UHD60 squeezes out more shadow detailing and subtle low-level colour information with dark HDR scenes than any sub-£5,000 HDR projector I've witnessed, which immediately makes such content feel more natural and consistent to watch.

Key to this dark scene success with HDR seems to be the combination of the PJ's unusually high brightness,

AV INFO

PRODUCT: Single-chip 4K/ HDR DLP projector

DOCITION:

One step from the top of Optoma's current home cinema range, below the UHD65

PEERS: Epson EH-TW9300; Acer V7850; JVC DLA-X5000

7. The UHD60 is Optoma's debut 4K projector



and not falling into the classic projection trap of attempting to 'shoe horn' in as wide a sense of HDR's expanded light range as possible by lowering the image's average brightness level.

The UHD60 does a striking job of creating the impression of a more dynamic, vibrant colourscape with UHD Blu-ray's wide colour gamut capabilities. It doesn't carry the sort of wide colour filter used by some of Epson's affordable HDR-ready models, yet somehow – through a combination of processing and the projector's impressive

'Optoma might have arrived a tad late to the 4K party, but with the UHD60 it's making its presence felt'

and efficient light system – you always feel that you're getting far more than SDR levels of colour from *Passengers*' often quite dazzlingly rich tones and settings.

My single favourite thing about the UHD60's HDR pictures, though, is how little they suffer with the distracting silhouetting problem – a loss of detail in dark areas – when showing mixed-luminance HDR images. There's a wonderfully appealing balance to its performance.

No motion to play with

When it comes to features, Optoma's PJ does show some signs of being developed to a price. For instance, there's no motion processing here – for that you need to dish out more for the brand's UHD65 – nor horizontal lens shift or 3D playback. Connections including dual HDMI inputs (one v2.0) and 12V trigger are fine, though, and user tweaks extend to a colour management system and ISF calibration support.

I'd worried before installing the UHD60 that the slightly flimsy build quality of its otherwise good-looking bodywork might result in some invasive cooling fan noise when playing HDR Blu-rays. After all, the finish feels plasticky, and the lift-up flap that takes up the whole front half of

SPECIFICATIONS

3D: No **4K:** 3,840 x 2,160 **HDR:** Yes. HDR 10 **CONNECTIONS:** 2 x HDMI inputs (one v2.0); VGA input; 3.5mm audio input/output; optical digital audio output; Ethernet system port; RS232; powered USB-A; USB; 12V trigger **BRIGHTNESS (CLAIMED):** 3,000 Lumens **CONTRAST (CLAIMED):** 1,000,000:1 **ZOOM:** 1.6x optical **DIMENSIONS:** 498(w) x 141(h) x 331(d)mm **WEIGHT:** 7.8kg

FEATURES: Single-chip 4K DLP projector; 15 per cent vertical lens shift; 25dB claimed fan noise in Eco mode; up to 15,000 hours claimed lamp-life depending on running mode; 1.39-2.22:1 throw ratio; 2 x 4W built-in audio system; SDR-HDR conversion processing; Dynamic Black; UltraDetail; gaming mode; ISF support; colour management system; HDCP 2.2

PARTNER WITH



GUARDIANS OF THE GALAXY – VOL. 2: For its first Ultra HD Blu-ray release, Disney has chosen this enjoyable Marvel space-caper sequel, and it looks absolutely

Marvel space-caper sequel, and it looks absolutely gorgeous – a real 4K HDR reference. Turn to p94 for our review.

the top edge (providing access to vertical image shift and 1.6x optical zoom adjustments) doesn't sit quite flush against the rear half. Happily, though, the UHD60 manages to generally keep the lid on running noise.

Less successful is the noise engineered by the model's onboard $2 \times 4W$ speaker system, which is much weaker than its stellar pictures deserve. Luckily, you'll probably never have to use it. An input lag measurement approaching 60ms when using the provided game picture preset isn't ideal for gamers, either.

Picture niggles are easily overlooked. As mentioned in passing earlier, *Passengers'* shots of outer-space reveal only middling black levels, and, while the UHD60 gives a bolder sense of HDR than expected, its impact is still not nearly as dramatic as that witnessed on the best HDR TVs (although this isn't really a fair comparison).

During *Passengers*' shots outside the space ship I occasionally noticed some low-level rainbow effect – the single-chip DLP phenomenon where stripes of red, green and blue flit almost subliminally in your peripheral vision.

Skin tones sporadically look either slightly jaundiced or a bit overcooked during HDR playback too, and finally the standard dynamic range to HDR conversion option Optoma has provided is just plain nasty. My advice is to leave this off and just enjoy the excellent SDR performance from standard HD sources.

Welcome to the party, pal!

A few flaws, then, but nothing that should put you off. Optoma's UHD60 is impressive for the money, and further cements the company's rep as a serious force in the entry-level and lower mid-range PJ arena. Optoma might have arrived a tad late to the 4K party, but it's making its presence felt

HCC VERDICT



Optoma UHD60

→£2,400 → www.optoma.co.uk

WE SAY: The UHD60's bright, ultra-sharp and impressively balanced pictures make this affordable PJ an instant hit. Looking for an upgrade on a Full HD model? Look here.

2. Manual zoom (1.6x) and lens shift controls are hidden below a pull-up flap



Tight room-shaking bass or rampant house-wobbling bass? It's your ULTRA choice...



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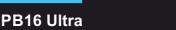
...the SB16 Ultra remains a brilliant subwoofer that's fast, controlled and can sniff out genuine sub bass moments in your BD collection. The PB16 Ultra meanwhile is built for those whose rooms can handle its fear-inducing SPLs...

Mark Craven HCC March 2017



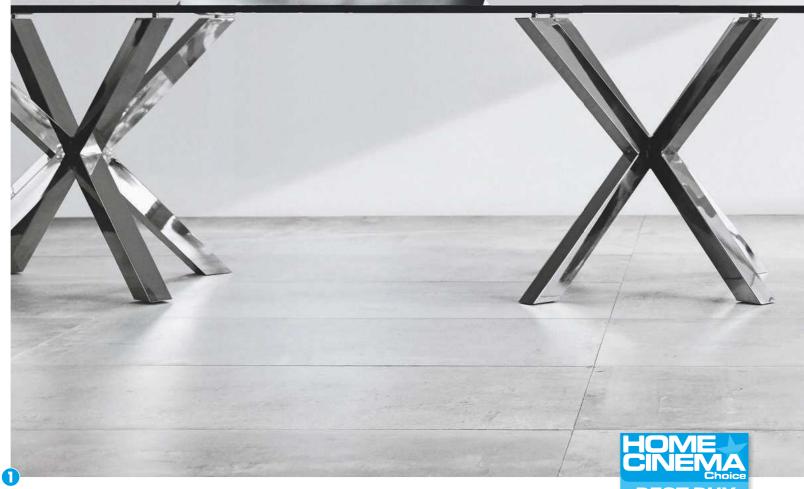












The 55in B7 is the most affordable 2017 OLED from LG. **Steve May** cuts some corners

The best value OLED TV yet?

If you're looking to tick all your buying boxes, then LG's 2017 OLED flatscreens should give your pencil plenty to do. They're a virtual gelato shop of HDR flavours, with umpteen toppings and sprinkles. Tested here is the B7, which has to suffer the ignominy of being the brand's entry-level offering, propping up the C7, G7, E7 and W7. But, given that differences between these screens are mainly cosmetic, could this be the smart buyer's choice?

It may be a mid-priced model, but in terms of design and finish the B7 looks reassuringly posh. It sports a slim silver bezel and neat curved stand, the latter emblazoned with 'LG OLED'. The back panel (as with the 55SJ850V reviewed last issue) is wrapped in arctic-white plastic casing. Ultra-thin up top, the TV fills out to 49mm in order to accommodate speaker system and silicon — unlike other LG OLEDs, there's no external audio source here.

Connections are therefore all found tucked into the TV's rear bodywork, including four HDMI inputs all HDCP 2.2-enabled (so you won't need to make any concessions when hooking up 4K sources); three USB ports; Ethernet (should you not want to use the in-built Wi-Fi); and a digital optical audio output.

As with LG's other OLEDs, there's no 3D support here, but you do get new features such as 360-degree video playback and an OLED still image gallery. Okay, you'd have probably preferred 3D...

We're now up to the 3.5 iteration of LG's webOS user interface, but the company has shown remarkable restraint with its revisions. WebOS was good when it launched, and still is. Its key feature is its Launch Bar, which gives quick access to apps, inputs and features, and remains clean and customisable – you can alter its running order to best suit how you use the set. The TV comes with the latest version of LG's cursor-based Magic control. I've always found this doofer responsive and intuitive to use.

App support is comprehensive. Netflix extends to 4K with both HDR and Dolby Vision, as well as Dolby Atmos audio; Amazon streams in 4K HDR and YouTube in 4K. Other options include Now TV, Sky Store, Wuaki.TV and the main catch-up services (Freeview Play is integrated).

The B7 shares the same SoC (System on a Chip) and picture processing engine as its stablemates, and its performance is unquestionably high, but there is house keeping you should take care of first regarding some of its picture tweaks and options.

Of the image presets offered (which include two ISF modes for bright- and dark-room viewing), Standard is a safe bet. It marries a healthy brightness with unobtrusive dynamics, and does a believable job with skin tones, giving a natural balance with no obvious colour aberrations. I found the basic Cinema mode, on the other hand, tending to make skin tones slightly yellow/green. Cinema Home is the better alternative.

Super Resolution is best set at Low; this is enough to give low-contrast detail a boost, without impacting the naturalness of the image. And don't get too happy with the Sharpness tool, to avoid overt edge emphasis.

Also be sure to select LG's Just Scan function in the Aspect Ratio menu; without it, I witnessed artefacting with a high-frequency 4K test signal.

The stage is set

I never fail to be impressed by OLED's inherent theatricality. That superb black level adds drama and depth to any

AV INFO

PRODUCT: 55in 4K HDF OLED TV

POSITION: LG's entry-level

PHERS: Philips 55POS9002; Panasonic TX-55EZ952

1. HDR 10, HLG and Dolby Vision are all on the B7's spec list

2. The super-slim design is only slightly marred by the TV's bulkier bottom section



64 REVIEWS



image, while wide colour and delicious detail tickle the eyeballs. When even the finest LCD screens can be scuppered by their backlight implementation, it's a joy to watch a display technology where that simply isn't an issue.

Keanu Reeves' attire in *John Wick: Chapter 2* (Ultra HD Blu-ray) is a challenge for any panel. Here, when Wick pops into the Continental for a post-carnage beverage, you can see blacks within blacks within blacks. This contrasts beautifully with the interior shots of the hotel, which are rich in elaborate detail and colour.

'Superb black levels add drama and depth, while wide colour and delicious detail tickle the eyeballs'

That said, the B7 isn't as effective as the Panasonic EZ952 (p40) when it comes to resolving ultra-fine 4K image detail, as evidenced from an arsenal of test patterns. Subjectively, though, I was consistently happy with its 2160p performance.

Native 4K may be AV catnip, but the B7 does a cracking job upscaling HD, too. Marvel's *Agents of Shield* (C4 HD) gains a cinematic sheen that's just not evident when viewed on lesser LED panels.

Let it shine

The most obvious improvement with this year's LG OLED crop is their peak brightness, which really adds snap to HDR, and this is one area where the B7 nudges ahead of its Panasonic EZ952 rival. Indeed, LG boasts support for every significant HDR standard – HDR 10, HLG and Dolby Vision. The latter remains something of a curate's egg, with a smattering of physical disc releases and some VOD content. Bong Joon-ho's Netflix original movie *Okja*, streamed in DV, does at times look ravishing, particularly in sequences set in a South Korean forest, with foliage glistening in sunlight. Yet the movie's subtitles are presented with such pop that they completely unbalance the image, and because Dolby Vision

SPECIFICATIONS

3D: No 4K: Yes. 3,840 x 2,160 HDR: Yes. HDR 10; HLG; Dolby Vision; Technicolor TUNER: Yes. Freeview (Freeview Play); satellite HD CONNECTIONS: 4 x HDMI inputs; 3 x USB; digital optical audio output; 2 x RF inputs; Ethernet; headphone output; RS232 SOUND: 40W BRIGHTNESS (CLAIMED): 'Ultra luminance' CONTRAST RATIO (CLAIMED): N/A DIMENSIONS (OFF STAND): 1,229(w) x 708(h) x 48.6(d)mm WEIGHT (OFF STAND): 17.2kg

FEATURES: Built-in Wi-Fi; Bluetooth; USB multimedia playback; webOS 3.5 with Magic Remote; Dolby Atmos over IP decoder; Netflix 4K, Amazon Video 4K, YouTube 4K playback; Magic Sound tuning; HDR Effect; Colour Master Engine

PARTNER WITH



ALPHASON CHROMIUM 2 1200:

Designed to house screens up to 55in/30kg, this stylish TV stand offers twin shelves and additional storage space; a soft close door with glass window; and comes in grey, red, white, ivory and black finishes. Pricing is £260.

assumes control of the screen's settings, there's nothing you can do about it.

The panel has no problem tone mapping content mastered at 1,000 cd/m2. There's some minor low-level black level clipping, but not enough to noticeably impact near black shadows.

Motion handling is reasonable. For sports coverage, opt for the Clear Trumotion setting. For other content, try User (de-judder O/de-blur on 8). For a really cinematic image, turn Trumotion off.

Audio is generally less impressive. The set offers low-fi down-firing stereo speakers which are functional at best. This isn't an issue, of course, if you intend to use a higherspec sound system for all your viewing.

The set also has a Dolby Atmos decoder compatible with Netflix. The first Atmos title available through the streaming service is the aforementioned *Okia*.

Obviously, the TV's internal speakers are not best equipped to make the most of Dolby Atmos. The solution is to route the audio out over HDMI ARC to an external Atmos system, be it an AV receiver or soundbar. Yet the TV isn't compatible with Dolby Atmos delivered via a TrueHD bitstream (that's to say on Blu-ray/Ultra HD Blu-ray), only when it comes within a Dolby Digital Plus container. We've talked to LG, which say it's working on a firmware fix to resolve the issue.

Killer combo

The B7 may ostensibly be an entry-level OLED telly, but its picture performance remains on the right side of premium. Those inky blacks and dramatic HDR are a killer combo. The set's design is also icy cool, although the bright bezel really isn't home cinema compliant. Price cuts make it available for as little as £2,000, which means it's sorely tempting – if you're not already waiting for 2018 models...

HCC VERDICT



LG OLED55B7

→£2,000 → www.lg.com/uk

WE SAY: The blade-slim design and a luscious picture make this affordable OLED a great choice to front any home cinema – but don't expect marvels from its Atmos audio.

3. Each of the B7's four HDMI inputs is HDCP 2.2-enabled



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AVR-X1400H offers HEOS for all

This low-price AVR doesn't look any different from its predecessor, but offers new functionality – and a balanced sound – that may make it a perfect fit. **Danny Phillips** heads to Scarif

WHILE SOME AVR and processor marques can seem loathe to continually refresh their product range year after year, it's a challenge that Denon rises to with relish, adding value to new models without hiking up prices, thus giving buyers a reason to part with their cash. The brand's entry-level and midrange receivers include more features every year while avoiding a drop in performance and a big price rise.

The latest example of this is the 7.2-channel AVR-X1400H, which spices up the specifications sheet of last year's AVR-X1300W with in-built HEOS multiroom streaming – appearing for the first time across Denon's entire AVR range – and HDMI passthrough of new HDR variants. It does Dolby Atmos 5.1.2 and DTS:X out of the box too.

The addition of HEOS is a major win. Should you have any HEOS speakers, you can add this receiver (and your cinema speaker system) to your house-wide multiroom setup. Even if you don't own or plan to get other HEOS gear, integrating it within this AVR means a wider range of streaming services, and slicker app-based user control, come into play.

Of internal tweaks, the most notable is the implementation of a new 32-bit DAC (Asahi Kasei's AK4458), used previously in the 2016-era AVR-X4300.

This pricier option, says Denon, was chosen after extensive listening tests. The promise is of greater resolution and greater dynamics over the TI PCM1690 DAC employed in the AVR-X1300W.

One area that hasn't been updated is the external design. The chassis again sports a gentle curve and large input/volume dials. It looks neat but is only available in black, and the plasticky central portion of the fascia lets you know you're shopping at the affordable end of the market. As ever, this feels a far cry from the fridge-like receivers of old.

The display itself is big and shouty, giving full format names and sources in bright digits. Below it sit a row of buttons, including Quick Select keys (handy) and keys for tuner presets (probably not so handy). Below these are front-panel inputs – HDMI, USB, 6.5mm headphone socket and an input for Denon's setup mic.

Around the back are five more HDMI inputs, tethered to a single ARC-enabled output. There's no dual-screen/Zone 2 video functionality here. Still, all HDMIs are and primed for 4K/60p, HDCP 2.2, HDR10 and Dolby Vision, with HLG support due to be added via firmware update this Autumn.

As a modern receiver for the HDMI and networking generation, the absence of coaxial digital ports, and

AV INFO

Seven-channel AVR with Atmos, DTS:X and HEOS

POSITION: Denon's entry-level 7.1 model

PERS: Yamaha RX-V483; Pioneer VSX-932 just two stereo analogue inputs, is acceptable. Integrated Wi-Fi brings all the usual goodies — AirPlay, Spotify Connect and DLNA music streaming from PCs and NAS drives — but the beauty is that you can oversee playback from Denon's HEOS smartphone app. Hi-res FLAC, WAV, AIFF, DSD and ALAC files are supported, while TIDAL, TuneIn and others join Spotify on the streaming roster.

This app itself is terrific, effortlessly flinging music to multiple multiroom speakers. Presentation is top drawer; it's logically laid out and loads up NAS drive content without batting an eyelid. Another app, Denon's AVR Remote 2016, is a surrogate remote control, offering a more traditional range of AVR functions. You can flit between the two controllers with a tap of the screen.

Older-school users can stick with the physical remote. The button arrangement is simple but it feels a bit plasticky in general.

The Denon's HDMI-piped onscreen menus are basic but get the point across. A Setup Assistant guides you through initial setup using foolproof menus while Audyssey's MultEQ room correction system (not the MultEQ XT32 iteration found on the company's higher-end receivers) aims to sort out any acoustic problems and create an even soundfield, before giving you a choice of running the calibrated audio in Reference, L/R Bypass, Flat or Off modes.

Note that MultEQ requires a minimum of three readings (you can do more if you like) to work, so factor in a little setup time. More in-depth tweaking can be done via Audyssey's MultEQ Editor app, a £20 download for iOS/Android devices.

I'm one with the Force...

As with Sony's STR-DN1080 [p48], this is another affordable receiver claiming the sort of power rating you might usually associate with a high-end dedicated amp – in this case, 145W per channel. Dig a little deeper into Denon's specs and an 80W-per-channel measurement (20Hz-20kHz, 8 Ohm, 0.08% THD, two channels driven) perhaps gives a fairer indication of its prowess.

And while not a beast, the AVR-X1400H still sounds muscular. As Jedha City is destroyed in *Rogue One* (Blu-ray, DTS-HD), the scale of the scene is suitably immense. A wall of sound thunders across the room towards you, underpinned by solid LFE. The Denon's sound is cohesive and well-balanced, not allowing any particular frequency to dominate.

Amid the carnage, first-class detail reproduction shines through. Clear, precise top-end info adorns every explosion.

Surround information is deftly orchestrated too. X-Wings and Tie Fighters scream between speakers with speed and



SPECIFICATIONS

DOLBY ATMOS: Yes DTS:X: Yes THX: No MULTICHANNEL INPUT: No MULTICHANNEL PRE-OUT: Yes. 7.1 POWER OUTPUT (CLAIMED): 7 x 145W (into 6 Ohms) MULTIROOM: Yes. Zone 2, plus HEOS integration AV INPUTS: 3 x composite; 2 x digital audio (1 x optical and 1 x coaxial) HDMI: 6 x inputs; 1 x output (all v2.0) VIDEO UPSCALING: No. 4K passthrough COMPONENT VIDEO: No DIMENSIONS: 434(w) x 151(h) x 339(d)mm WEIGHT: 8.5kg

FEATURES: HEOS multiroom streaming and smartphone app; Ethernet; Bluetooth; Wi-Fi; AirPlay, Spotify Connect, DLNA streaming; FLAC, WAV, AIFF, DSD and ALAC playback; TIDAL, SoundCloud, Napster, TuneIn Radio; Audyssey MultEQ auto calibration; compatible with Audyssey MultEQ Editor app (£20); dual subwoofer outputs; Dolby Surround Upmixer; DTS Neural:X

PARTNER WITH



ROGUE ONE: A STAR WARS STORY: This spin-off from the main franchise doesn't let the side down with its streamlined story, sumptuous visuals and thrillingly cinematic DTS-HD MA 7.1 soundmix. A great home cinema demo disc.

purpose. The soundstage is broad and immersive, with accurate effects placement during the beach battle on Scarif. This expressive presentation, coupled with clarity and organisation, makes the action easy to follow.

Switch over to *Captain America: The Winter Soldier* (Blu-ray, DTS-HD) and the brilliant freeway shoot-out is a blast. The action is weighty yet nimble; car engines roar and snappy gunshots have a tight bass thud. You can crank the volume without ruffling the Denon's feathers, testament to the AVR's careful tuning.

Yet although it conveys gunshots and explosions crisply, you might think it could do with attacking them a bit harder. Denon's characteristic smoothness ensures listenability at loud volumes but lacks the bite you get with other receivers.

This approach works well with music. The AVR-X1400H's natural warmth and finesse gave me chills when streaming Marvin Gaye's *What's Going On*. The soul masterpiece is drenched in detail, with a smooth balance and tight, groovy basslines.

Everything you need?

The low/midrange receiver market is a sweet spot for Denon, and the AVR-X1400H is a good showcase for exactly what £430 gets you these days. The option of running 5.1.2 or 7.1, app-assisted control, automated EQ, Bluetooth/network streaming with a strong selection of services — it's all here. Certainly, legacy inputs are meagre and the onscreen UI appears dated, but I can't see potential buyers complaining.

In use, it has the refinement and detail for which Denon is renowned. Listeners who like their soundtracks a bit more feisty might be underwhelmed, but there's no denying the AVR-X1400H's appeal

HCC VERDICT



Denon AVR-X1400H

→£430 → www.denon.co.uk

WESAY Another midrange marvel from Denon, offering a superb feature list – enhanced by HEOS and Dolby Vision support – and detailed performance at a great price.

- 1. The AVR-X1400H looks identical to its X1300W predecessor
- 2. Well-spaced. colour-coded speaker terminals make wiring an easy job

Let's go outside

BenQ's GS1 projector lets you take your home cinema obsession out of the house. **John Archer** grabs his tent and wellies to find out more



THE BENQ GS1'S claim to fame is simple: it's the first projector we've tested that's designed to be used outside.

What does this mean in specification terms? First, it can be used wirelessly, thanks to a slot-on battery pack capable of delivering three hours of pictures, and support for both Wi-Fi and Bluetooth.

Second, it ships with a rubber case that's certified to be sufficiently drip proof to survive splashing from a spilt drink or the Great British weather.

Next, it's highly portable. It weighs under 1kg, and just about fits into a large cagoule pocket. It also ships with a padded carry bag if you'd rather shove it in a rucksack.

The GS1's outdoor credentials are rounded out by the fact that it can apparently survive a 60cm drop (not tested), and sports a unique Camping picture preset for outdoor use – such

AV INFO

PRODUCT:
Petite 720p DLP PJ
designed for outdoor
as well as indoor use

Around the middle of BenQ's home entertainment range

BenQ W1070+; Optoma GT1080 as projection onto an exterior wall, or the canvas surface of a tent. There are even daylight, 'starry' evening and campfire settings!

Not that the £500 GS1 is only about the great outdoors. It also sports a Movie preset for more traditional home cinema situations.

The projector is rated to deliver a 60in, 720p-resolution image from a metre throw distance, with a contrast ratio of 10,000:1 and a surprisingly low (given its outdoor ambitions) claimed brightness of 300 Lumens. You can push beyond 60 inches, but images will struggle for brightness.

The GS1 is exceptionally easy to set up, with accessible connections (including an HDMI and powered USB for Amazon Fire TV sticks and the like); graphically rich Android-driven menus; built-in speakers; automatic vertical keystone correction; and a screw-down tilt leg.

The Android connection provides access to a few (fairly uninteresting) apps, plus a more useful 'online TV' system that collates more than 100 internet video sources into a TV channel list.

Genuinely watchable

This turns out to be a good all-round performer. It gets far more punch out of its 300 Lumens than I expected, delivering either quite dynamic, vibrant images in dark movie rooms, or genuinely watchable images in low-light outdoor scenarios.

Pictures are clean and sharp. The 720p resolution does enough to make detailed shots from the *Alien: Covenant* Blu-ray, such as the space scenes as the crew fixes the solar 'sail', look genuinely HD. Motion is handled credibly, with minimal judder or blur even when the film's beasties are scuttling about.

SPECIFICATIONS

3D: No 4K: No. 1,280 x 720 HDR: No CONNECTIONS: HDMI; 2 x USB; microSD card slot; 3.5mm headphone BRIGHTNESS (CLAIMED): 300 Lumens CONTRAST (CLAIMED): 10,000:1 DIMENSIONS (WITH BATTERY): 146(w) x 66(h) x 139(d)mm WEIGHT: 400g

FEATURES: DLP projector; 2 x 2W audio; rubberised cover; Camping, Starry night, Daylight, Campfire and Movie presets; carry case; detachable battery for 3 hours playback/device charging; Wi-Fi; Bluetooth; Android OS: 60in image from 1m throw

BenQ's one-piece rubberised case is IPX1 Splash Proof-certified

Colours are bold and believable for both *Alien: Covenant*'s difficult and ever-changing array of skin tones and the unusual intensity of the Covenant's computer displays. Colours actually seem tuned for (day and night) video use rather than PC presentations.

The GS1 doesn't suffer badly with DLP's rainbow effect, fizzing or green dotting issues, and runs quietly for such a little machine. This makes it easier to appreciate its surprisingly well-rounded, clear and widely dispersed onboard audio.

Dark interiors down on the planet in *Alien: Covenant* exhibit grey-green clouding, even when using BenQ's Movie mode. However, in truth this isn't as aggressive and distracting as it usually is with ultra-portable 'convenience' projectors, and doesn't stop pictures still looking cinematic. In the sort of low-level ambient light the GS1 feels mostly designed for, moreover, you won't notice the greyness at all.

While designed for exterior use, this projector really doesn't work in direct sunlight, or even high levels of general daylight. Yet I tried it on a magnolia external house wall, white garage door and light-brown canvas tent, and in all cases it delivered a watchable image at dusk and beyond.

The GS1 therefore proves to be a pleasant surprise. As well as delivering a genuine evening outdoor/camping entertainment alternative to playing cards, cooking baked beans and trying to put off going to the toilet, it performs well enough to make it a respectable and practical projector for casual home use

HCC VERDICT



BenQ GS1

→ £500 → www.beng.co.uk

WESAYA This adds new entertainment to your camping trips, and doubles as an occasional cinema/TV PJ when you're back home.

SAMSUNG

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QLED TV



Balanced vision

John Archer discovers that Samsung's £1,000 4K HDR mid-ranger still has the ability to have him planning yet another UHD Blu-ray movie marathon

WITH SAMSUNG'S FLAGSHIP QLED TVs raising eyebrows with their intimidatingly high prices, many prospective TV buyers have switched their attentions to Samsung's step-down MU series. Models like the UE49MU7000 reviewed here ditch QLED, but still boast 4K HDR support and advanced processing at a much more aggressive price.

Nit picking

This £1,000 49-incher has a native UHD panel that delivers a measured light output of 700 nits on a 10 per cent white HDR window (an impressive figure given that other similarly priced sets often peak at around 450 nits); and Samsung's Dynamic Crystal Colour system, which in this implementation is capable of serving up more than 17 million individual colours, we're assured.

While the UE49MU7000 is better qualified for HDR than any similarly priced set I'm aware of, there is one limitation worth mentioning: unlike its larger MU7000 siblings (the range includes 75in and 82in whoppers), it only uses an 8-bit panel, rather than the 10-bit panel required by the Ultra HD Alliance's Ultra HD Premium standard. As we'll see, though, the extra brightness the

UE49MU7000 is able to deliver relative to rivals compensates handily for the lack of 10-bit power.

It's an attractive TV. Slim around its edges and to the rear, and with a metallic finish that stands out nicely against the plasticky concoctions usually found at the £1,000-or-so price level.

Styling isn't ruined by the typical tangle of cable spaghetti either. Most of the TV's sockets are found on an external connections box that hooks up to the TV via a single cable. Inputs on this bundled accessory include four HDMIs, three USBs and Ethernet – there's also in-built Wi-Fi. As with all Samsung TVs I've seen this year, VOD options run to 4K HDR implementations of Netflix, Amazon, and YouTube, plus the 'big four' UK catch-up TV platforms.

For its 7000 Series, Samsung is using a flat rather than curved screen. That's fine by me, as using the latter design on a set this small (although 49in is by no means tiny...) doesn't make much sense unless you're sat extremely close. There are curved MU9000 and MU6000 models available.

The TV illuminates its pictures through an edge LED lighting system with whole-frame dimming.

AV INFO

49in 4K LCD TV with HDR support

In the lower half of Samsung's 2017 HDR LCD TV range

Sony KD-55XE8596; Philips 49PUS6401 This means there's no local dimming, whereby different sections of the edge LEDs can output different levels of light. This may reduce the image's contrast potential, but it isn't necessarily a bad thing, as experience suggests it can also lead to less backlight flaws and inconsistencies.

Joining the UE49MU7000's 4K resolution is support for the HDR 10 industry standard HDR format, in addition to the upcoming HLG broadcast format and Samsung's new HDR 10+ iteration, which adds dynamic metadata to the core HDR 10 stream. No HDR 10+ content is yet available, but Amazon has said it will introduce it on its Prime video-on-demand service. There's no provision for Dolby Vision HDR playback.

I am Groot!

Considering its price tag, the UE49MU7000 delivers a startlingly convincing picture with the stunning 4K Blu-ray of *Guardians Of The Galaxy Vol. 2*.

This disc features perhaps the most explosive use of high dynamic range and wide colour technologies seen to date, yet its pushed-to-the-limit nature doesn't phase Samsung's mid-priced HDR set. The kaleidoscope of colour during the fireworks-in-space sequence appears remarkably rich and vivid. Much of this is due to the UE49MU7000's superior brightness, but also because it's efficient at partnering that brightness with reasonably deep, even and cloud-free black levels.

'Design, image quality, smart features and pricing combine to make this Samsung one to shortlist'

In fact, although not as luxurious in contrast or colour pop/width as Samsung's significantly more expensive tellies, when it comes to backlight uniformity this model comfortably outguns most if not all of them.

Detail-rich dark sequences reveal subtle shadow detail in even the murkiest corners; there's none of that flat, hollow look that affordable LCD TVs suffer with when trying to pick their way through dark HDR images.

The UE49MU7000 emphatically delivers the benefits of 4K Blu-ray's resolution, too. During the woodland scenes after the Guardians' crash landing, this sharpness contributes to both an enhanced sense of depth versus the HD image, plus some sumptuous pixel finery in the foliage around the ship and the protagonists' skin tones, clothing and, um, fur and tree bark.

The sharpness holds up better than I'd expect for the UE49MU7000's money when showing motion too. True, leave the TV with Samsung's Supreme Motion tool deactivated and it's not the smoothest or most detailed image, but the frenetic opening fight scene from *Guardians of the Galaxy:* Vol 2 suffers with almost no blur and only minor judder when processing is activated. Nor are there many unwanted side effects if you employ the custom mode to set judder reduction to around five.

SPECIFICATIONS

3D: No 4K: Yes. 3,840 x 2,160 HDR: Yes. HDR 10; HDR 10+; HLG TUNER: Yes. Freeview HD CONNECTIONS: 4 x HDMl; 3 x USB; RF input; Ethernet; RS-232; digital optical audio output SOUND: 40W BRIGHTNESS (CLAIMED): 1,000 nits CONTRAST RATIO (CLAIMED): 'Mega' DIMENSIONS (OFF STAND): 1,090(w) x 634.1(h) x 55.3(d)mm WEIGHT (OFF STAND): 14.3kg

FEATURES: Built-in Wi-Fi; USB/DLNA multimedia playback; edge LED lighting; external connections box; Eden 2.0 smart system (with 4K HDR VOD); web browser; Bluetooth headphone support; screen mirroring; One Connect box; Slim Edge design; quad-core processor; Dynamic Crystal Colour; Supreme Motion

PARTNER WITH



Q ACOUSTICS M3: Samsung's onboard speakers do a respectable job, but Q Acoustics' £300 single-enclosure soundbar (with built-in woofer) will boost sonic enjoyment while matching the TV when it comes to design flair.

Samsung is now one of the strongest brands around when it comes to upscaling HD content to 4K, and this set scales its performance down beautifully to handle the relatively relaxed demands of non-HDR content. It's an agreeable performer with BDs and HD broadcasts.

Thin, relatively affordable TVs can struggle to partner their pictures with even half-convincing audio. Not so the UE49MU7000. *Guardians... Vol. 2*'s thumping soundtrack during its huge action scenes and love affair with classic rock and synth is a challenge for any system, yet this flatscreen – despite sporting seemingly no visible speakers – boasts an expansive enough mid-range to handle all the sonic info without sounding excessively compressed or brittle. There are no distortions or cabinet buzzes either, and the sound is able to project surprisingly freely from the TV's edges. Not bad at all.

The set's single biggest performance limitation is its viewing angle. Watch from more than 25 degrees off-axis and the previously strong contrast and colour performance really plummets – and you definitely don't want that happening with your pristine 4K discs. Potential buyers should consider their room layout.

All-round appeal

2

This screen isn't one of Samsung's 2017 tech titans, but it's the one that's left the greatest impression on me. Set it up to avoid any viewing angle issues, and you can enjoy its likeable performance while counting the saved pennies. Design, image quality, smart features and pricing combine to make it Samsung's most all-round appealing TV of the year so far, and arguably the best TV for HDR you can currently buy this side of £1,500. And the larger 55in version will only set you back an extra £250, just so you know... ■

HCC VERDICT



Samsung UE49MU7000

→£1,000 → www.samsung.co.uk

WESAY: You'll be hard-pressed to find another TV performing so admirably with 4K HDR content for so little money, even if it does use an 8-bit panel.

1. HDMI and other inputs are housed on an external connections box

2. The TV's slim bezel is joined by a svelte back-end and unfussy A-frame stand

BT TV resprayed

A revamped BT YouView experience wants to take on Sky Q and TiVo. **Steve May** plays catch-up



BT'S YOUVIEW+ TV box should look familiar. The G4 PVR has been around since 2014, and cosmetically remains the same today - but there have been big changes beneath the lid. It's now slicker than an otter's pocket.

This set-top box is ultra compact, and a design match for BT's Home Hub router. It has an integrated 500GB hard drive and, thanks to an outboard power supply, is reassuringly quiet in operation. There's a solitary HDMI output, plus Ethernet for connection to the Home Hub – it goes without saying that you need to be a BT broadband customer for this box to function. There's also a USB port, but it does nothing of note. With no display. LED lights are used to reveal if the box is awake or asleep.

The BT TV platform is a mash-up of terrestrial and TV-over-internet channels.

AV INFO

Hybrid terrestrial TV/ IP TV set-top box

BT's main TV PVR. A 4K version is also available, as well as a non-recording zapper box

Virgin Media TiVo

The box is limited to recording two channels simultaneously, far fewer than Sky Q or the Virgin Media TiVo V6.

There's no Wi-Fi, either. This is because all the internet channels use IP multicasting, and few Wi-Fi devices support this. I tried and failed

to use a Google Wi-Fi extender; the set-top box connects and downloads content, but no 'net channels make it through the ether. The only reliable way to use this PVR is to hardwire it to your router (although I'm aware some users have had success with Powerline).

YouView itself has migrated from Flash to HTML5, with a cloud-based backend. This rewrite translates to lots of new graphical flourishes. As you browse, channels stay live in the background. The box is quick to navigate while search is deep and comprehensive.

A Mini Guide in the lower third of the screen allows you to quickly move between a Now On guide, Player & Apps, MyTV (the recordings library) and Settings. As you would expect, all the main channel players are here – iPlayer, ITV Hub, All4 and Demand 5, plus Netflix, Now TV, Milkshake, UKTV Play, S4C and the BT TV Player. Venture below the Mini Guide, and you're into the full YouView EPG.

Everything is pictorial, but this results in some usability flaws. The recordings library consists of thumbnails, but stock up and navigating becomes a bit of a chore. The option of an alphabetical/recording date list view would be helpful – as would more HDD space.

In many ways, this is a tale of two platforms. YouView provides the fancy front-end, while BT's own portal is a walledgarden that looks rather different. Here, a tabbed home screen curates Highlights,

SPECIFICATIONS

HDD: Yes. 500GB 4K: No HDR: No CATCH-UP CHANNELS: Yes. BBC iPlayer; ITV Hub; All 4; Demand 5; BT TV Player **CONNECTIONS:** HDMI v1.4; digital optical audio; Ethernet; composite video; stereo phono audio; USB

DIMENSIONS: 237(w) x 40(h) x 148(d)mm WFIGHT: N/A

Film, Kids, Music and BT's PPV

store. Scroll around and you'll receive thumbnail recommendations as well as bars of themed content, be they for AMC (a key content partner), catch-up or sport.

The quality of IP-delivered video is indistinguishable from HD channels received off-air, and certainly didn't disappoint. It also supports 5.1 audio when available. I'd rate it a reliable source for any home cinema system.

Sporting chance

BT's revamped TV proposition is satisfying. While the platform doesn't quite have the otherworldly slickness of Sky Q, it proves a good deal more engaging than the TiVo interface offered by Virgin Media. The two-tuner limit is a bind, but extensive VOD and catch-up compensate.

And BT's sports proposition is growing stronger. In addition to Premier League/ Champions' League action, the telco has rights to the Ashes this winter, and is the home of UFC and pugilist specialist Box Nation. For BT broadband customers, this makes it a knock-out pay TV option ■

HCC VERDICT



BT YouView+

£160 plus subscription (varies)

www.productsandservices.bt.com

ESAY: UI improvements keep BT's TV package feeling fresh, but more tuners would be nice...



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Digital Copy

Mark Craven pays homage to soon-to-close Lovefilm, the DVD/BD rental service that meant he never had to leave the house to get his hands on his favourite movies

WHEN I HEARD that the shutters are to be pulled on the physical-disc-by-post rental service Lovefilm (or, if you must, LOVEFiLM), my immediate thought was that surely it had already closed down some time ago. Paying money to borrow a movie on DVD or Blu-ray seems archaic, with Blockbuster having gone belly up years ago. To then have it relying on hand delivery by the Royal Mail, in an era when others are investing in drones, makes it seem even more outdated. Amazon (the owner of Lovefilm) admitted as much in its reasons for canning the service, citing our country's 'move to streaming'.

Have any *HCC* readers been Lovefilm customers right up to this bitter end? Probably not, but if you were, and are feeling a bit down about the whole thing, I feel your pain. Because Lovefilm, despite its retro trappings, was a smart idea.

Movies on demand

Firstly, the distribution method worked in favour of film fans and our hectic lifestyles. I began a Lovefilm subscription back in the mid-2000s and found it a joy. No more heading off to the DVD rental shop on a Friday night hoping there'd be something there to watch. Instead, you just looked at your post pile to see what had been delivered. No more late fees (or, even worse, a charge for failing to rewind a VHS...), and no more pressure to watch what you'd rented within a short time window.

More importantly, Lovefilm had a wide selection of movies (the company claimed a library of 'over 80,000' films and TV episodes), which was the complete opposite of my local branch of Blockbuster, circa 2005. Searching for films (via the Lovefilm website) was quicker too than perusing rows of discs. I loved this element of it;

using Lovefilm to queue up a list of features from my favourite actors/directors, and then working my way through them. I seem to remember watching a whole slew of Walter Hill films this way.

Basically, Lovefilm made renting movies easier and more enjoyable.

Of course, there are rival platforms that have cannibalised its market to the point where Amazon clearly deems it unsustainable – one of which being its own rent/buy digital movie/TV platform. But none are as extensively stocked, and non-physical systems come with the usual background issues (image quality, internet reliance, compatible devices) that put a dampener on their convenience. For me, putting a disc in a machine and pressing play remains my preferred way of watching.

And, when Amazon talks about the UK's streaming obsession, I'm pretty certain this relates to TV rather than movie material.

Practically everyone I know is midway through a US drama series on Netflix or Amazon, but I don't know anyone gorging on streamed movie downloads.

I wonder if it's the failure of digital to match up to the convenience and rich catalogues of the likes of Lovefilm that causes the UK disc market, led by retailers from HMV and Zavvi to Tesco and your local petrol station, to be so resilient. As is often noted by the home entertainment industry body BASE, Blu-rays and DVDs are still flying off the shelves. If you can't rent 'em, buy 'em.

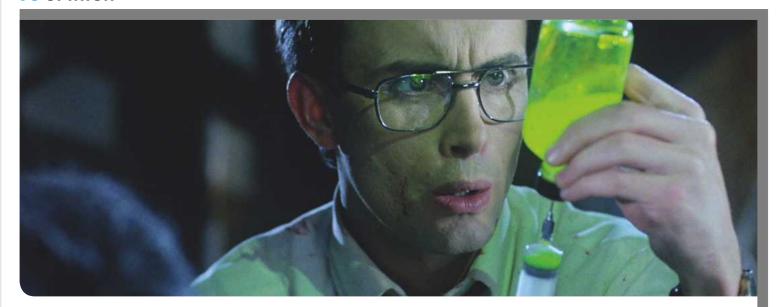
Lovefilm will, as of October 31st, become fodder for talking heads on 'Do you remember...' TV shows. But it should be remembered fondly, even if it involved waiting for the postie... ■

Were you ever a Lovefilm subscriber? Let us know: email letters@homecinemachoice.com

Mark Craven once cycled 10 miles on a Sunday afternoon to avoid being charged a £1 late fee on a VHS rental of Short Circuit 2



76 OPINION



Film Fanatic

Overcome by nostalgia, **Anton van Beek** can't stop thinking about the golden age of video rental and the role it played in his film education...

BETWEEN THE NEWS that Amazon is closing Lovefilm (see p13 and p75) and the arrival of Lionsgate's nostalgically-titled Vestron Collector's Series Blu-ray range on these shores (see p102), I've spent a fair amount of time recently reminiscing about renting films.

Admittedly, renting isn't something I've done in a very, very long time. After all, when you've spent the best part of two decades being fed a constant supply of DVDs and Blu-rays ahead of their actual street date, there really isn't much of a reason to pop down to the local branch of Blockbusters. Nor, unlike my colleague Mark, did I ever see any point in signing up with postal services when they supplanted the more traditional bricks 'n' mortar stores.

However, renting movies was an enormous part of my formative years and, in the process, played at least as large a role in my cinematic knowledge as the three years I spent attaining a degree in Film Studies [$I \ didn't \ know \ you \ had \ one - Ed$].

My earliest video rental options were restricted to the local store, which got in on the VHS-renting action early on with a freestanding rack of tapes. In the latter part of the 1980s this was joined by a devoted VHS outfit in the next village over and a prehistoric version of Lovefilm run by a chap with a white van who would drop off any tapes you ordered by phone from a homemade A5 catalogue he popped through the letterbox.

(The one and only time my parents used that service, I convinced them to rent the poorly dubbed Italian schlock-fest *Rats: Night of Terror.* I have no idea if watching that is what put them off using it ever again, but I'd like to think so.)

Of course, browsing a photocopied catalogue of film titles could never beat the sensation of walking

into an actual video shop and gazing in awe at all those wonderfully enticing video sleeves. I think I spent more time gawping at the lurid cover art of sci-fi and horror movies in those days than I did actually watching whatever I eventually rented.

This was how I navigated my way through the horror genre in my youth, lured on by outrageous sleeves that always seemed to promise so much. Eye-catching artwork is what led me to renting such dross as *The Boogeyman* (1980), *The Hills Have Eyes Part II* (1985), *Future-Kill* (1985), *Breeders* (1986) and *Watchers* (1988), but it was also how I discovered the demented delights of *The Evil Dead* (1981), *Basket Case* (1982), *Re-Animator* (1985) and their ilk.

Game over, man!

This sort of experience just isn't possible these days, and not only because bricks 'n' mortal rental shops are a thing of the past. Much more importantly, the existence of the internet means that you can find out everything about any film in a matter of moments, which spoils the fun somewhat.

You could, I suppose, browse the budget DVD section of your local supermarket and promise not to check the 'net while you do so. For some reason, Tesco and chums are home to myriad Z-grade fright-flicks that have usually been released under different titles in different territories. This is the only way to get the rush of choosing a film by cover alone − flicking through tiny thumbnails on Netflix doesn't have the same impact. But if you do choose to go down that route, be prepared to sit though an inordinate number of interchangeable handycam horrors set in abandoned insane asylums before you chance upon anything remotely worthwhile. Sigh ■

Do you have fond memories of films on video? Let us know: mail letters@homecinemachoice.com Anton van Beek once went to his local supermarket for milk, eggs and bread and came back with just a DVD copy of Cabin Fever: Patient Zero



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78 OPINION



In The Mix

The arrival of an extensive 4K/HDR test disc is good news for **Jon Thompson**, particularly as it doesn't ignore the tricky issue of skin tones

WHEN DVD WAS launched we were inundated with calibration and test discs with no end of patterns to tweak your system to the nth degree — if you understood what the patterns were for, of course. When Blu-ray popped up, it wasn't long before yet again test discs appeared. Yet UHD Blu-ray arrived around a year-and-a-half ago and surprisingly not a single calibration platter has surfaced. Until now, that is — the first commercially available UHD Blu-ray test disc (named *RM UHD/HDR 10 Test Pattern Suite*) comes courtesy of Ryan P. Masciola via his company Diversified Video Solutions.

You may have previously been aware of USB-based 4K test files. Indeed, Masciola has had a very good set available to download for over six months. But the issue is that the USB port on UHD Blu-ray players gives inferior results to the optical drive, while on a lot of players file format support has been restricted. Certainly, if you watch most of your films via USB then calibrating via USB is the way to go. **But I don't. I watch them off a disc.**

Anyway, I'm happy that Masciola has not only got a disc out but that it's the most comprehensive UHD/HDR 10 test suite so far. It lands on a BD66 platter, as it's much more extensive than the download version.

Under the skin

One of the things that impresses is that Masciola has spent a lot of time looking at tests and test clips for skin tone. All the calibration discs that I'm aware of so far (expect the Disney *World of Wonder* test and setup disc) have no reference or test for skin tones.

I learnt years ago from people like the legendary cinematographer Ernest Dickerson (who worked on many of Spike Lee's '80s/'90s classics) that when we watch (live-action) films the reason we're

interested in the stories is the human interaction – we're watching people, and connect with the movie through them. Skin tone is therefore important.

Dickerson did groundbreaking work on accurately representing it on film, particularly the skin tone of African-American actors. In film stock the blue layer was the first and most sensitive, and the red hue in skin tone got lost as red did not get picked up as easily. The result was African-American skin tending to look a bit green or magenta. Dickerson found that lighting the face with a key with a slight magenta or green gel gave a lift and balanced out the tone. All this was judged by eye, on set, and shows the skill of a cinematographer. Characters look real and three-dimensional on film and you connect with them. Watch Dickerson's work on Mo' Better Blues, Malcolm X (pictured) or Jungle Fever, to name three.

So, knowing the trouble filmmakers go to make onscreen actors look right, when you finally watch their work it makes sense to ensure skin tones are accurately represented. Doesn't it?

Back to Masciola's disc. This includes the Pantone skin tone checker, which is a revolution in display setup, as it's the first time you can measure how well your screen is displaying skin tone, and is joined by some real-world test images (we watch people, not test patterns, when we view a movie....).

Last issue I suggested you might want to fork out thousands on a colour meter, test pattern generator and pricey software. This time I've lowered my sights to a £75 UHD disc. Skin tones are just one facet of its armoury – there are over 1,000 patterns and tools. If you have a UHD deck and are interested in seeing if your display shows HDR 10 images correctly, it seems like a bit of steal ■

Have you used a calibration disc to tweak your display? Let us know: email letters@homecinemachoice.com When he's not in his screening room, Jon Thompson tweets about Hollywood gossip, movie-making and digital mastering at @johnnyfocal



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I want my Mummy... to work

I am writing to report a compatibility issue between my Samsung UBD-K8500 UHD Blu-ray player and certain discs in Universal's *The Mummy Complete Legacy Collection*, Blu-ray edition.

There appears to be a peculiarity in the disc authoring of the two double-feature discs in the boxset, namely *The Mummy's Hand/The Mummy's Tomb* and *The Mummy's Ghost/The Mummy's Curse*.

When I attempt to play these discs, I am first presented with a language selection screen. If I select English (or French or Spanish), I am consequently presented with the Movie Selection screen. But when I make my selection, the screen just goes blank. I wait patiently but nothing happens!

Fortunately, I have stumbled upon a workaround. If I select any language other than English, French or Spanish, then the movie selection works correctly and the movie plays fine. But once the movie is running, I then have to turn off the subtitles. Most annoying.

I have verified that this approach works consistently with both problematic discs.

This peculiar behaviour is not confined to the UBD-K8500. I get the same problem with



a much older Samsung BD player. So it's reasonable to assume that the problem is widespread amongst Samsung users. I have checked for system updates for both players, and I can confirm that I am running the most up-to-date versions.

I should mention that the discs work without issue on my friend's Panasonic player, but I have been unable to check their behaviour on other makes of player. So far,

these are the only discs which exhibit this odd behaviour. Indeed, the companion *Frankenstein Complete Legacy Collection* works fine on my Samsung players.

I hope that the above info will be of help to other afflicted users, and it will help Universal to resolve the authoring issue, so that future releases will not be similarly affected. I've tried contacting Universal Home Entertainment via its website Contact Support option, but get an

4K Blu needed HDR!

Hi. Mark Craven said last month in his answer to the letter from Daniel Edward that he thought Ultra HD Blu-ray was 'delayed too long.' Presumably he's suggesting that players should have been released at the same time as the first 4K TVs. Yet this wouldn't have been a good idea in my opinion as those TVs weren't able to do HDR. We would have ended up with the first 4K Blu-ray standard soon being replaced by another one (also with HDR), meaning early adopters having to buy a new player AND new discs.

For me, HDR is as important as 4K when it comes to making this new format so impressive. Watch *The Revenant* or *Pacific Rim* on a non-HDR TV and neither has the

Mark Craven replies: You're probably right, Pat. I'm just very impatient...



error message. Very frustrating. Perhaps you could take up this issue with them on behalf of your Samsung-owning readers? Steve Fyles

Anton van Beek replies: Thanks for the heads up. I had no issues with *The Mummy Complete Legacy Collection* Blu-ray set [reviewed in *HCC* #274] using an LG player and have checked it on an Oppo deck, and still no faults. We asked Universal, which explained 'the disc passed the verifier and is up to BD specifications,' and provided a list of 11 Samsung players it was pre-checked with, with no issues (although the UBD-K8500 isn't listed). The studio suggests you should contact Samsung.

US movies = bad?

Dear *HCC*. There's something wrong with our movies.

When we first got Sky satellite TV (possibly incorporating Thor) many years ago we were able to view films and programmes from all over Europe, especially some good films from Germany and France and sometimes the rest of the world. But now we only seem to get films and Blu-rays/DVDs mostly made, funded or produced in America – plus most of the documentaries/soaps made there too, with their horrible shouty commentators and dreadful interfering non-music.

Apart from hardware your magazine is full of the same! When will this propaganda stop and we are allowed to see the world of film and content again?

Derek Alexander

Mark Craven replies: An interesting point, Derek, as it can sometimes seem that Hollywood's dominance of the cinema industry is growing ever larger. A trawl through the movies screening at my local multiplex yields only one vaguely foreign effort — Overdrive — which, while set in France, turns out to be a US production with an English language soundtrack.

It certainly feels as if previous eras have been more receptive to foreign fare – I remember movies such as *Amelie* (2001), *Oldboy* (2003) and *The Lives of Others* (2006) being breakout hits. Yet the world's cinema industries haven't simply gone belly up, it's just that films need distribution, and with the likes of Tartan Films going into administration in 2008, distributors are maybe playing it safe by sticking to content that it knows will play well with a UK audience.

Anton van Beek replies: While it's true that TV channels have generally become more risk-averse when it comes to showing foreign-language features, it's still possible to stumble across the odd offering on the likes of BBC Four and FilmFour. At the same time, the appetite for foreign-language TV drama is

Star Letter...

Will a 75in TV be too big for my room?



Thanks for a fantastic magazine which I've read every month for many years now. I hope you can help...

A while back in your letters pages every now and then someone would ask about the ideal TV size given their viewing distance. I haven't seen such a letter for a while so thought I'd write one!

I use my living room for the main TV and the room is 12.7m long x 3.75m wide. The TV is viewed across the width of the room, so from 3.75m away.

I'm in the market for a bigger and better TV to replace my 12-year-old (!) Pioneer PDP436XDE. I'm drawn to the Sony KD-75ZD9 but my only concern is whether HD and standard-def TV will look good enough on a 75in TV from 3.75m away.

I mainly watch Freesat – 85 per cent HD (BBC, ITV, etc.) and 15 per cent SD (More4, etc). I don't know when the BBC and others plan to start transmitting in 4K but want a relatively futureproof TV. I also understand the Sony is quite good at upscaling.

It's difficult to assess for myself at the retailers who are, of course, all showing 4K on such TVs rather than HD or SD (who can blame them).

I went to a big retailer who is 'never knowingly undersold'. It recommended the 75in TV but is that just to try to sell me a higher-priced TV? What's your view? John Ioannou

Mark Craven replies: When it comes to viewing distance, opinion varies from person to person and standards body to standards body. Check out the recommendations from the ITU (International Telecommunications Union), and it suggests viewing 4K content from as little as 1.6x picture heights, for a viewing angle of 58 degrees – which

in the case of the 75ZD9 TV would be just 1.55m. However, as reader Ion Mitchell was quick to point out [see Feedback, *HCC* #265], this results in you swivelling your head around. So for 4K also consider its maximum distance, of 3.2x picture heights (giving you a viewing distance with the Sony of 3.1m). Yet THX and the SMPTE both suggest more relaxed viewing angles and increased viewing distances.

Personally I don't think the 75ZD9 is going to be too big for your space (some may argue). However, as you're planning to view a lot of HD and SD content (albeit upscaled to 4K), you might find it exaggerating image flaws over your smaller Pioneer Kuro. Ask your retailer to chuck in a UHD BD spinner, too...

Star letter-writer John grabs Marvel Studio's smash hit sequel *Guardians of the Galaxy Vol. 2* on Blu-ray. The latest action-packed instalment in the Marvel Cinematic Universe finds the world's favourite band of intergalactic misfits heading out into the farthest reaches of the cosmos to unravel the mystery of Peter Quill's true parentage, facing enemies old and new in the process. *Guardians of the Galaxy Vol. 2* is available to own now on Digital Download, 4K UHD, 3D Blu-ray™, Blu-ray™ and DVD.

>

larger than ever, thanks in no small part to the success of the so-called 'Nordic Noir' shows (*The Bridge, The Killing...*) and regular slots exist for these on both BBC Four and More4. Meanwhile, the rise of VOD services such as Curzon Home Cinema and Walter Presents have arguably given film fans greater access to an entire world of films and TV shows than ever before.

As for your comments about our own disc coverage – yes, we lean heavily on Hollywood blockbusters (because these are the most popular), but it's definitely not to the exclusion of foreign-language fare. In this issue we have reviews of New Battle Without Honour and Humanity: The Complete Trilogy (Japanese), The Fabulous Baron Munchausen (Czech), The Strange Vice of Mrs. Wardh (Italian), The Long Hair of Death (Italian) and The Handmaiden (Korean).

And lest you think we arranged this in response to your letter, the previous five issues included the likes of *The Taisho Trilogy* (Japanese), *J'accuse* (French), *The Age of Shadows* (Korean), *Pulse* (Japanese), *Elle* (French), *The Bird with the Crystal Plumage* (Italian), *The Mighty Peking Man* (Mandarin), *Toni Erdmann* (German), *Phenomena* (Italian), *Drunken Master* (Cantonese), *Dead or Alive Trilogy* (Japanese), *Brotherhood of Blades* (Mandarin), *The Story of Sin* (Polish), *The Innocent* (Italian) and *My 20th Century* (Hungarian). We're definitely not adverse to covering foreign-language films...

6.1 to Dolby Atmos help!

Hi. Twelve years ago we built an extension to our home that was designated on the plans as a 'garden room' but morphed into a home cinema.

A Pioneer plasma, Sky HD box, Pioneer AV receiver and Denon DVD player were installed to feed an in-wall KEF 6.1 speaker setup. All pretty much state-of-the-art for their time and price.

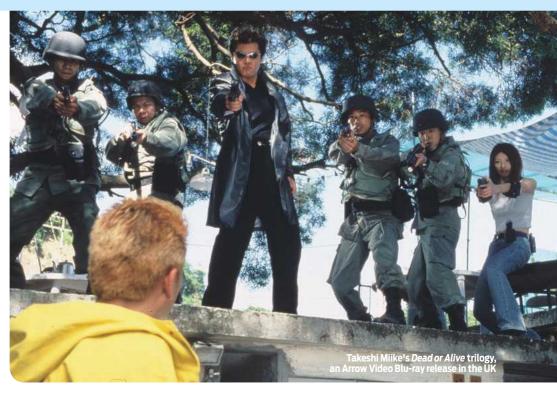
The plasma was quickly changed for a Sony LCD due to image retention problems. The Pioneer was replaced with a Yamaha AVR described by Jim Hill [former HCC staffer]

as 'the last AV receiver you'll have to buy' and the KEFs remained.

Okay, Jim did qualify his assertion with 'for a few years at least,' and so here we are a few years later and I need a new AVR to manage my Dolby Vision Dolby Atmos HDR OLED UHD 4K future.

My problem is what is the best way to convert

An eleven-channel AVR offers plenty of setup flexibility



from 6.1 to Dolby Atmos? Is the back middle now redundant or is it possible to incorporate it into some hybrid Atmos system by a clever choice of the right AVR and the addition of front height speakers?

Google has not yet produced an answer, perhaps the brains behind your magazine know the way forward!

Your thoughts and suggestions would be much appreciated. *Jeff Dickinson*

Richard Stevenson replies: Really, you have two choices. First, you can replace your Yamaha AVR with a new seven-channel model, consign your rear back channel to the scrapheap and run a new 5.1.2 Dolby Atmos setup. This will be the most affordable method, as once you've fitted your Atmos height speakers there might not be much left in the kitty for an AVR – there's plenty of choice and value around with sevenchannel models.

The pricier alternative would be to invest in a nine-channel (or perhaps 11-channel for futureproofing) AV receiver. You'll only be

using eight of those channels, of course. Wire up your two new Atmos height speakers to the speaker terminals marked 'height' and your single back-channel speaker to one of the surround back channel terminals – in the case of Denon's AVR-X6300H (pictured below), the manual advises you to use the Left terminal. You can then assign a single surround back channel during setup.

None of the *HCC* team has run a 6.1-channel base-layer Atmos system (6.1.2 or 6.1.4), so we can't comment on how it would perform, but you should maintain the benefits of a deeper rear soundstage.

Streamin' makes me feel good

I felt the urge to weigh in on the whole 'stream or not to stream', debate that has been raging on recently and was particularly taken with Steve Old's Star Letter in HCC #274.

I am a streamer. Yes, I have said it and I admit it. I stream a lot and I admit that I stream from more than one source. Yes, I'm streaming around!

I stream from the likes of Netflix (to which I've just upgraded to 4K content) and Amazon



(since upgrading to my new UHD TV I am re-watching The Grand Tour in glorious 4K), and I also stream Now TV (Sky Movies) whenever I get an offer. I refuse to pay the full price of £9.99 for the movies and every time I go to cancel they tend to let me have it for half the price, which I am not about to

But do I own digital content? No. If I wish to buy a movie to keep, I'm with Steve in that I will purchase the Blu-ray disc. And, as is the case with Steve, my shelves are swelling with my current DVD/Blu-ray collection. Basically I use streaming to replace 'rental', which personally I feel has become ludicrously expensive over recent years. To rent a Full HD movie with 5.1 surround sound you are looking in the region of £5, which I flatly refuse to pay. You're not even renting a physical disc! It's just a file you are streaming. How do they get away with that?

This makes my £8.99 4K subscription to Netflix much more appealing and like Anton said, I also get to binge on the episodic content of House of Cards, Orange is the New Black and Better Call Saul, all in 4K. Suffice to say these streaming services provide the backbone of my 4K content until I take the plunge and purchase a 4K disc spinner.

In a nutshell Netflix, Amazon and Now TV feed my rental requirements and there have been many cases when I have come across a movie that I have liked so much, I have then purchased the physical disc for keeps. This has ensured that I only purchase the movies I really want to own, which helps keep my groaning shelves in check! Ian Forster

Mark Craven replies: Thanks Ian. And here's me saying [p75] that I don't know anyone streaming movies these days...

In the full version of your letter (trimmed for space) you also comment on Sky's Now TV service not offering 5.1 audio. Compared to Amazon and Netflix content this does count against it. And, like vourself, we're in the dark as to why multichannel streams aren't part of its package.

Can I be of service...

I have read with interest the Feedback pages in HCC #276 and in particular the letter from Greg King and Mark Craven's reply about making a 1080p projector work with 4K/ UHD sources.

I have a Denon AVR-4308 which has an internal video scaler, and it would seem that the Denon AVR-X3300W that Greg owns also has a similar one. By default this will be in Auto mode and as Mark mentions the resolution being sent to the projector should adjust to suit it, by virtue of its EDID passed to the AVR via the HDMI connection.

Unfortunately, Greg does not mention how he has connected his UHD TV and his HD projector, but it seems likely that he is using the two HDMI outputs (Main and Zone 2) of the Denon. I am fairly certain that there is only one video scaler in the AVR and it probably is applied to the Main output only, meaning that his projector needs to be connected to this and the TV to the Zone 2 output. It would then be worth setting the video scaler to 1080p rather than Auto. I suspect that the Zone 2 output is always the resolution of the currently selected source. If Greg is making use of the HDMI passthrough feature when the AVR is switched off, moving the TV to the Zone 2 output may not support this, which might be a problem for him.

However, no amount of video scaling will solve what I think is the main problem here. As we know Ultra HD content usually carries HDCP 2.2 copy protection and this is always present whatever the resolution the source device thinks it is outputting to. So Sky Q and UHD Blu-ray sources playing HDCP 2.2 protected content will never display to a 1080p projector that has HDCP 1.4-capable inputs (which is what I believe the Sony VPL-HW40ES has). The only solution is to find a device that effectively converts HDCP 2.2 to HDCP 1.4 and place it in line with the projector's HDMI input. Of course, if there are other devices in the HDMI path to the projector (extenders, active cables, switchers, splitters etc.) then these too must all be HDCP 2.2-capable.

There are some video scaling products available that can do this, but since scaling is not really needed for use with Greg's Denon AVR a much lower-cost HDCP management device is all that is actually required. Such devices do currently exist but as they have a dubious HDMI certified status (HDMI licensing does not officially support HDCP conversion) they may cease to be manufactured at some point.

I suggest taking a look at the TechLogix TL-C-HDCP device as a low-cost solution or the Absolute Acoustics NDX-X12 for a more advanced solution. The latter does include a video scaler and can take a single HDMI signal and split it to two HDMI outputs, one passthrough and one scaled. I think something like this could be the ideal solution for Greg as it could be used on the AVR's HDMI Monitor output to distribute the video to his TV and projector, at the same time if needed, for all 1080p and UHD content while preserving the AVR's HDMI passthrough feature to both displays.

One final point concerns the power up sequence of HDMI connected devices needed to ensure that EDID and HDCP handshaking operates correctly as Mark describes. The order should be display first, then switching/ distribution (AVR etc) and finally the source device, with sufficient time given for each component to fully start up before powering up the next device in the chain.

I hope the above is helpful. David Webster (Former Chief Technology Officer for a pro-AV company)

Mark Craven replies: Thanks for the detailed response David! We've sent your letter onto Greg directly, and hopefully it will help him resolve his twin-screen, multiple-source issue ■

Contact us...

Write to HCC, AV Tech Media Ltd, Suite 25, Eden House, Enterprise Way, Edenbridge, Kent, TN8 6HF, or email us at letters@homecinemachoice.com Please note: we cannot guarantee to print/answer all the letters we receive. Sorry.

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Photo courtesy of Gary J.Fernandez

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Vestron Collector's Series Blu-rays

Lionsgate UK Home Entertainment has given fright fans a treat with the launch of its Vestron Collector's Series Blu-ray range. The label kicked off recently with UK Blu-ray debuts for *Blood Diner*, *C.H.U.D. II: Bud the CHUD*, *Return of the Living Dead 3* and *Waxwork* — and to celebrate we've got five sets of the four Blu-rays to be won!

Ouestion:

Waxwork's leading man Zach Galligan also starred in which legendary 1980s creature-feature?

Answer:

A) Gremlins B) Ghoulies C) Critters Email your answer with 'Vestron' as the subject heading – and don't forget to include your postal address!





American Horro Story: Roanoke Murder and madness

await a couple looking for a peaceful life in the country in this latest season of the hit series.

American Horror Story: Roanoke is available to own on DVD and Blu-ray

from September 11, courtesy of Twentieth Century Fox Home Entertainment, and we've got five Blu-rays up for grabs!

Question:

Which pop star appears in the fifth and sixth seasons of *American Horror Story*?

Answer:

A) Lady Gaga **B)** Rihanna **C)** Madonna Email your answer with 'AHS: Roanoke' as the subject heading – and don't forget to include your postal address!



This side-splitting comedy starring Julian Barratt and Simon Farnaby is out now to own on Digital Download, DVD and Blu-ray, via StudioCanal.

To mark the release, we've got five copies of the *Mindhorn* Blu-ray to give away – just answer the following question correctly to be in with the chance of winning one...

Question:

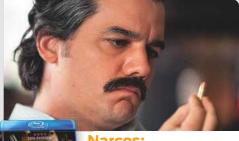
Julian Barratt is a member of which surreal British comedy troupe?

Answer:

A) Monty Python B) The Goodies

C) The Mighty Boosh

Email your answer with 'Mindhorn' as the subject heading – and don't forget to include your postal address!



Narcos: Season Two

The second season of the critically acclaimed Netflix crime drama about drug lord Pablo Escobar is now available to own on DVD

and Blu-ray by itself and as part of a *Narcos: Season One & Two* boxset. Thanks to Arrow Films we've got five *Narcos: Season Two* Blu-rays to give away!

Question:

Narcos star Boyd Holbrook played a villain in which recent comic book blockbuster?

Answer:

A) Logan B) Guardians of the Galaxy Vol. 2

C) Wonder Woman

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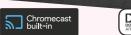
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Certified: AV-Holic!

HCC reader – and *Star Wars* fanatic – **Shouwn** enjoys the benefits of a second subwoofer and the Atmos/DTS:X tracks of 4K discs, even while he waits to upgrade his Full HD projector





Welcome to the AV-Holics Hall of Fame – introduce yourself!

My name is Shouwn, I'm 44 years of age and live in South Australia.

What's in your system?

I am currently running a 5.2.2 speaker configuration utilising Krix Neuphonix (left and right), Vortex (centre), Dynamix (surround) and Atmospherix A20 speakers (for Atmos/DTS:X height channels), all powered by an Onkyo TX-RZ900 AV receiver.

My other equipment includes dual SVS PB-2000 12in subwoofers sitting atop Auralex Bass Dude subwoofer platforms; a JVC DLA-X35 projector firing onto a Screen Science 96in 2.35:1 aspect ratio screen; an Oppo BDP-103D Blu-ray player; an Xbox One S games console (for 4K UHD playback); a Myryad Z210 CD player; a Strong SRT6100 PVR/STB; and an Apple TV.

HDMI, interconnect and power cables comprise a mix of Audioquest, Monster and Analysis Plus cables respectively, and I'm using Liberty in-wall speaker cable for all speakers.







What was the last thing you added to your setup?

I've made a number of recent purchases to try and improve the audio and video quality of my system. This includes the second SVS PB-2000 subwoofer, which has really improved bass response in my room, plus the Xbox One S for 4K UHD Blu-ray.

Although I have to scale down the picture resolution to 1080p to watch on my JVC projector, 4K UHD discs still look great and, importantly, enable me to access a bigger range of movies with object-based audio soundtracks.

I've also purchased a pair of Auralex Geofusers and a pair of Auralex Profusor acoustic panels. As you can see, I'm a big fan of using acoustic treatment in my cinema and I believe this has made a significant improvement to the sound quality.

What's your favourite bit of kit, and why?

I love my Krix speakers. This is simply the best speaker system I have ever owned. Whether I'm listening to the latest Hollywood blockbuster in Dolby Atmos or kicking back with a good old CD in stereo, my Krix speakers never fail to impress. They are articulate, dynamic and well balanced. It's great to know that I am also supporting a locally made

product [Krix describes itself as Australia's 'premier manufacturer' of home theatre loudspeakers]. The dual SVS subs add to the enjoyment with incredible slam and depth.

Are you thinking of upgrading anything soon?

While I'm really happy with my JVC DLA-X35 projector, I would love to upgrade to a 4K model with HDR. Hopefully, JVC will release an affordable true 4K projector soon. I've already started saving!

Do you stream movies/TV from Netflix/Amazon/Sky etc?

Yes, my wife and I have really got into Netflix lately, especially binge-TV favourites such as *Orange is the New Black* and *American Horror Story*. We also watch a movie or two through the Apple TV.

What movies/discs do you use to show off your system?

My current favourite demo discs are the Dolby Atmos and DTS:X demonstration Blu-rays. These discs truly demonstrate the beauty of object-based audio in my cinema room. I'm also a huge *Star Wars* fan and love playing the latest instalment (*Rogue One: A Star Wars Story*) to showcase the superb audio and picture of my system.

And when I really want to shake the foundations of my house, I can't go past *San Andreas* on Blu-ray in Dolby Atmos. Truly mindblowing!

And what are your Top 5 favourite flicks?

That's easy: Star Wars, The Empire Strikes Back, Rogue One, Return of the Jedi and The Force Awakens. And did I mention that I love Star Wars?

How often do you settle down for a movie night?

I try to use my cinema room daily. It's a great place to be able to sit down at the end of a busy day, relax and get truly immersed in whatever I watch or listen to.

What do family and friends think of the cinema?

My wife and kids absolutely love it. We always look forward to watching the latest Hollywood blockbuster in the cinema room.

My friends always ask me when I'm hosting the next movie night or if they can come and watch the big game (AFL of course!) on the bigscreen.

It's a place to come together with my family and friends and has provided many hours of enjoyment ■

Share your cinema system in the mag!

If you want to be in HCC, you'll need to send us some hi-res images of your cinema room. Here are a few tips...

- 1. Go big. Set your camera to take images at the largest possible size, and at the highest resolution. Don't worry about cropping or resizing we will make them print-ready.

 2. Get in focus. Make sure your photos are as sharp and clear as possible. If you have one, use a tripod, or place your camera on a flat, steady surface and take pictures on a
- 3. Let some light in. While we tend to watch

delay. The sharper they are, the bigger we

can print them.

- movies in the dark, our cinema systems look their best when they are lit. If you can shoot with natural daylight, do so. If your room doesn't get a lot of light (a garage conversion, for instance) then switch on whatever lights are fitted. Avoid using flash wherever possible.
- **4.** Be thorough. Send photos of as much of the room as possible. Images of both the front and back of the room, the kit rack, speakers, seating, disc shelf, movie poster art... The more the merrier.
- **5.** Don't be shy. Send a picture of yourself!
- **6.** Show us more. Got pictures of your room before it was a cinema? Or snaps of work being done? We love to see these, too.

Now what?

Email your images to

letters@homecinemachoice.com with the subject heading 'AV-Holic', and provide your answers to the questions above – then we'll be in touch!

Certified: AV-Holic!

The 4K TV in this system gets used every day, but a hidden projector and screen are on hand for movie night and gaming sessions. Proud owner **Trevor** shows us around













Welcome to the **AV-Holics Hall of** Fame! Introduce vourself...

Hi. My name is Trevor Mitchell, I'm aged 67 and I'm retired.

What's in your system?

For the projection setup I have a Sony VPL-VW550ES 4K projector, an 85in Pure Theatre in-ceiling screen and a Pure Theatre in-ceiling projector lift. Additionally, I have a Panasonic TX-58DX902 4K TV.

My AV receiver is a Yamaha RX-A3050. This is used to drive my 5.1.4 speaker system using Robson Acoustics' custom install models for the LCR and surrounds (the latter with canvas picture grilles), four GoldenEar Invisa series in-ceiling models for Dolby Atmos, plus a REL T7 subwoofer. Sources are an Oppo BDP-105D Blu-ray player, Panasonic DMP-UB900 Ultra HD Blu-ray player and an Xbox One S.

What was the last thing you added to your setup?

The native Sony 4K projector.

Are you thinking of upgrading anvthing?

Yes. I have a 105in acoustic in-ceiling projector screen from Screen Innovations arriving soon.

What's your favourite bit of kit, and why?

I love all of it, to be honest. But if I have to choose it's got to be the new Sony PJ. The 4K picture is amazing!

What do friends and family think of the cinema?

My wife is happy with it and loves watching movie on it. If friends call in they love the TV and are impressed when the screen comes out of the ceiling, followed by the projector lift, and how it all integrates with the sitting room.

Does the setup get a lot of use?

We use the Panasonic TV every day. The cinema setup (screen and projector) comes



out four/five times a week for films and for me playing games.

Do you stream movies/TV from Netflix/Amazon/Sky?

Yes – we stream Now TV, Amazon movies and Netflix through the Xbox One S.

What movies do you use to show off your system?

Life of Pi, The Revenant, Prometheus and Mad Max: Fury Road.

And what are your Top Five favourite flicks?

The Big Lebowski, The Fifth Element, Singing in the Rain, Bugsy Malone and the Alien series ■





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PLAYBACK

→SOFTWARE HIGHLIGHTS GUARDIANS OF THE GALAXY VOL. 2 Disney's first foray into 4K is an HDR marvel KING ARTHUR: LEGEND OF THE SWORD Guy Ritchie unleashes medieval mayhem on UHD Blu-ray RONIN Newly restored action classic SHOCK TREATMENT Cult musical hits the right notes THE HANDMAIDEN Seductive hi-def thriller & MORE!

The bitch is back

Alien: Covenant → Twentieth Century Fox → Ultra HD Blu-ray



After sitting out Prometheus, the xenomorph returns in director Ridley Scott's horrifying sequel to his prequel. Head to p96 to find out if it was worth the wait, and whether or not you can teach an Alien new tricks, as we take the film for a spin on 4K Blu...

HCC RATINGS KEY...

Outstanding Acceptable Disappointing



I am Groot. I am Groot. I... am... Groot. I am Groot. I am Groot. I am Groot. I am... Groot...





HCC VERDICT

Guardians of the Galaxy Vol. 2

→ Walt Disney → Ultra HD Blu-ray & All-region BD → £35

WESAY: Spell-binding picture and sound make this a reference-grade release for a fun flick.

→ Guardians of the Galaxy Vol. 2

For his second *Guardians*... outing, writer/director James Gunn dials down the plot and ratchets up the banter and visual pyrotechnics. While the results are hardly the sci-fi/superhero equivalent of *Raging Bull*, they do add up to a mountain of stupid fun, with the returning cast (Chris Pratt, Dave Bautista, Zoe Saldana, Bradley Cooper and Vin Diesel) – plus newcomers Kurt Russell, Pom Klementieff and Elizabeth Debicki – wise-cracking their way through a plotline encompassing family strife, living planets, deadly drones and vindictive space pirates.

Picture: Disney's 4K Blu-ray is a masterclass in how effective HDR and wide colour can be Set-pieces such as the insane opening scene and firework-laden finale explode off the screen, delivering the widest range of colours and extreme dynamics you'll see on any home release.

This doesn't mean, though, that this HEVC 2.40:1 encode can't do subtle. Rich tones contain enough finesse to appear authentic rather than cartoonish, while natural landscapes and skin tones (even green ones) always look impeccably natural. Deep black levels underpin the experience.

Detail and sharpness impress, but perhaps to a lesser extent. It's still beautifully clean and crisp, though, and delivers a clear improvement over the accompanying HD Blu-ray. In fact, the 1080p encode feels almost depressingly dull and lifeless by comparison.

In an ideal world the *Guardians...* 4K release would support Dolby Vision as well as the HDR 10 standard, as it did in cinemas. But it's impossible to feel shortchanged by an Ultra HD picture that's destined to be considered AV demo fodder for years to come. *Audio:* The Dolby Atmos audio mix found exclusively on the 4K disc (TrueHD 7.1 for non-Atmos systems) is as much of a riot as its pictures. All channels are persistently and aggressively used for both general

ambience and specific effects/transitions; bass levels are potent and deep without being intrusive; and the film's roster of pop classics has never sounded better.

As with previous Disney/Marvel titles, the 1080p BD sports a DTS-HD MA 7.1 mix. *Extras:* While most people will buy *Guardians of the Galaxy Vol. 2* on 4K Blu-ray for the film and its peerless AV talents, it also comes with a decent suite of extras (even if they are all relegated to the accompanying Full HD Blu-ray).

James Gunn provides a chatty, self-effacing commentary track, and there's also fun to be had from a gag reel, four deleted/extended scenes, a four-part 40-minute *Making of...* documentary and a whacked-out music video featuring David Hasselhoff.

Going in Style

Warner Bros. → All-region BD



This amiable (not to mention timely) remake of a fairly obscure 1979 comedy caper stars Michael

Caine, Morgan Freeman and Alan Arkin as a trio of retirees who decide to rob the bank that has swallowed up their pensions. Shot digitally, *Going in Style* arrives on Blu-ray with a nicely detailed 2.40:1 Full HD encode that has no trouble reproducing the wrinkly visages of its aging cast. The DTS-HD MA 5.1 audio, meanwhile, is engaging enough, if not exactly expansive or dramatic. Bonuses are limited to a commentary by director Zach Braff and 11 deleted scenes.



Their Finest

Lionsgate → Region B BD



A companion-piece of sorts to Christopher Nolan's *Dunkirk*, this charming, if episodic, WWII comedy-drama

stars Gemma Arterton as a scriptwriter for the Ministry of Information who gets involved with the production of an epic morale-boosting film about the Dunkirk evacuation. *Their Finest* lands on Blu-ray with a glossy 2.40:11080p encode that reflects the strengths (colour tonality) and weaknesses (murky black levels) of the digital photography, supported by a surprisingly immersive DTS-HD MA 5.1 soundtrack. A commentary and eightminute *Making of...* are the only extras.



The Red Turtle

StudioCanal → Region B BD & R2 DVD £25



Co-produced by Studio Ghibli, Michaël Dudok de Wit's Oscarnominated, dialogue-free animation follows a castaway, stranded on a tropical island, whose life is changed forever

by a large red turtle that keeps wrecking his attempts to leave. Early impressions of StudioCanal's *The Red Turtle* Blu-ray are very good, with the colourful 1080p encode making the most of the deceptively simply animation, while the evocative DTS-HD MA 5.1 mix is packed with subtle atmospheric touches across the entire soundstage. What lets it down is the lack of extras, with all but one of the features from the US disc missing here.





Sort it aaaht, Arfur!

Footballer player cameos and East End lingo don't add up to the stuff of legend

→ King Arthur: Legend of the Sword

Few directors veer between such quality extremes as Guy Ritchie – unfortunately *King Arthur* fits squarely into the bad side of the Ritchie canon.

Its story is borderline incoherent, the gratingly cockney dialogue (when Charlie Hunnam can be bothered to try to get the accent right) is frequently excruciating, and tonally the film is all over the place. Aside from a couple of stylish scraps towards the end it's hard to think of any reason to recommend that you spend any time with this horribly 'street' retake on the Arthurian myth.

Produced with an eye on creating a new 'cinematic universe', it's hard to see that idea taking off. **Picture:** With all this in mind it's almost a relief that the 4K Blu-ray doesn't go out of its way to tempt on the AV front. Close-ups in the 2.40:1 image look detailed, but much of the time it's hard to spot any significant increase in sharpness over the HD Blu-ray version. It probably doesn't help that the 4K image is likely an upscale from the film's 2K digital cinema master (although we've seen numerous 2K upscales that conjure up a greater impact than this one).

The addition of HDR and wide colour is more notable. Skies are brighter, blacks look deeper and more detailed, and highlights such as flaming torches, reflections on armour, the flames of Vortigern's fiery alter ego and David Beckham's teeth all gleam with extra intensity from the somewhat cool nature of the cinematography. That said, the HDR 'expansion' of the image isn't as pleasing as you might hope from such a recently shot film.



Audio: The 4K and HD discs both get the same Dolby Atmos soundmix. This is a solid rather than outstanding effort, which makes potent use of Daniel Pemberton's thumping, sometimes distracting score. It's energetic and works well to create the film's environments, but does feel a touch lacking in dynamic heft and nuance versus the best soundtracks, despite the frenetic onscreen action. **Extras:** All of King Arthur's extras are found on the region-free HD Blu-ray supplied in Warner's 4K package. There's no commentary track, but the series of featurettes, ranging from five to 19 minutes and covering the acting, directing, set design, prop design, locations and swordplay, are generally better than usual thanks to their surprising candour, humour, and almost complete focus on behindthe-scenes footage – there's hardly any time wasted on churning out clips of the film that you just watched.





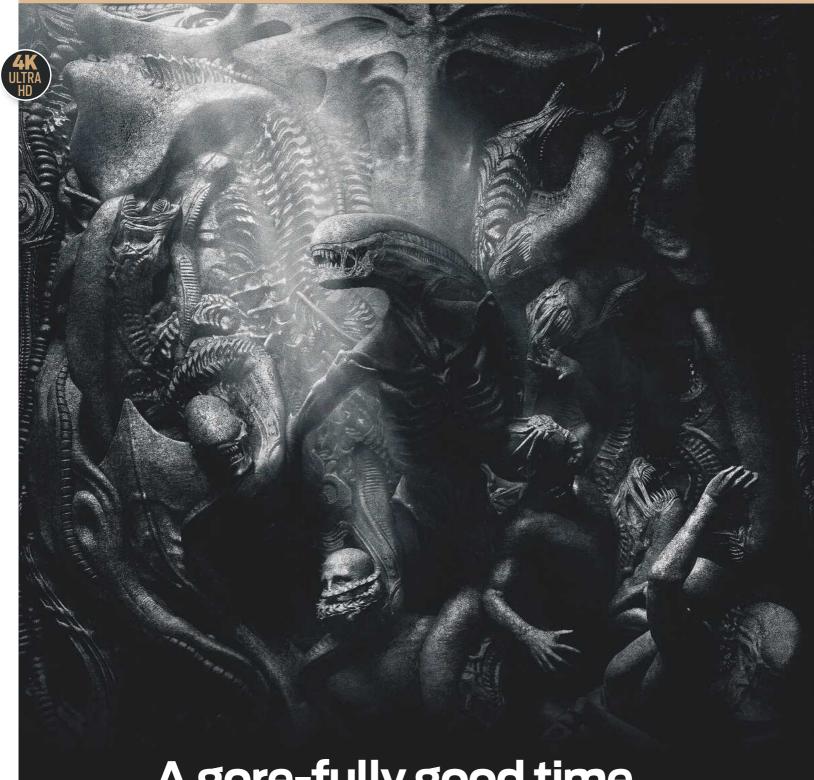
HCC VERDICT

King Arthur: Legend of the Sword

→ Warner Bros. → Ultra HD Blu-ray & All-region BD → £35

WESAY: A disappointing mess accompanied by a rather average 4K Blu-ray presentation.

Movie:
Picture:
Audio:
Extras:



A gore-fully good time

Ridley Scott puts stomach-churning body horror front and centre in the second part of his long-gestating *Alien* prequel series...











→ ALIEN: COVENANT

When the crew of the colony ship

Covenant pick up a signal of apparently human origin in the remote depths of space, they launch an expedition to track it to its source. What they discover is a curiously Earth-like world that plays host to a familiar face and a nightmarish new breed of extraterrestrial horror.

Clearly stung by the criticisms of his first Alien prequel Prometheus, Ridley Scott's follow-up is an unabashed splatter film that ditches much of the philosophical underpinnings of its predecessor in favour of showing all the ways the human body can be destroyed by its menagerie of monsters.

For the most part, Alien: Covenant succeeds at these more limited goals – especially when it's all wedded to David's (Michael Fassbender) re-invention as a mad scientist. Where it eventually stumbles is with a final act that is content to retread the same old alien-on-a-spaceship material that we've already seen countless times before. Yet even this pays of with a gut-punch of a final twist that is one of the franchise's most audacious and shocking concepts to date... Picture: Just as Prometheus was a standard bearer for 3D Blu-ray, so Alien: Covenant (which wasn't shot stereoscopically) does a fine job of waving the flag for the UHD disc format. The film appears far more ravishing and textured in its 4K iteration than it does in Full HD guise, providing more proof that you can get plenty of sharpness and allure from upscales of 2K digital intermediates.

Sometimes this sharpness can look slightly forced, with low-level noise in some shots, and a slightly stressed look to high-contrast edges. For the most part, though, the detail enhancement helps rather than hinders the 4K transfer.

The application of HDR is even more in your face. Nearly every shot aboard the USSC Covenant, and its dropship, glows with HDR beauty, as bright artificial lighting and computer displays shine out against extended black level depths. Colours radiate with an intensity beyond anything on the standard dynamic range BD.

Just as the 4K sharpness occasionally pushes into a slightly unnatural, forced territory, this HDR grade can on occasion lead to elevated blacks and a few awkward-looking skin tones.

Audio: The 4K release of Alien: Covenant scores over the 1080p Blu-ray with an exclusive Dolby Atmos mix, and it's one which works its socks off to keep viewers enveloped in the action. The sound designers combine an abundance of imaginative, well-positioned spot effects with an almost uncanny understanding of ambience and audio space. In other words, this is a mix which knows just when to push hard and just when to ease off.

There are more aggressive and dynamic sound tracks out there. But we've always had a soft spot for a mix that serves the film and its settings rather than just shouting about how clever and brash it is. *Extras:* As franchise fans will expect, *Alien: Covenant* serves up a satisfying bunch of extras.





Scott's commentary meanders along amiably enough, providing insights into the film's ideas and themes. The fact that it scarcely covers the actual technicalities of the filmmaking process can probably be put down to Scott's early admission that the track is, 'Off the cuff, I haven't planned it.'

Also included are 12 deleted/extended scenes (18 minutes). These aren't as consistently strong as those provided with *Prometheus*, but a handful of them certainly could have been left in the movie to help flesh out the characters.

While it can't hold a candle to the 221-minute Furious Gods... documentary that accompanied Prometheus, the 56-minute Master Class: Ridley Scott features some excellent behind-the-scenes footage, especially when it comes to creating the film's creatures and special effects.

Perhaps most interesting are the collection of 'mini movie' promotional side-pieces. These five beautifully shot shorts cover areas like the psychological profiling of the ship's crew, a synopsis of what happened during the journey from *Prometheus* to *Alien: Covenant*, and a fascinating 'video diary' charting David's descent into robotic psychopathy, which hints at further horrors a future sequel could well pick up on.

Rounding things out are extensive galleries of concept art, creature designs, 'Ridleygrams' and David's biological illustrations from the film.

The extras give you a chance to study David's illustrations (only briefly glimpsed in the film) in detail

HCC VERDICT

Alien: Covenant

→ Twentieth Century Fox → Ultra HD Blu-ray & All-region BD → £30

WESAY: An enjoyable, if not entirely successful, return to the franchise's roots with 4K HDR visuals to die for.

Movie: ***
Picture: **
Audio: **
Extras: **
OVERALL: **

Arcade Action

Bigscreen home entertainment isn't just about movies anymore. **Rik Henderson** checks out a videogame vying for time on your home cinema system...



Uncharted: The Lost Legacy

Naughty Dog/Sony Interactive Entertainment → PS4 → £25

Last year's Uncharted 4 felt very much like the end of a series hence the sub-title A Thief's End. But we were pleasantly surprised to learn that it wasn't to be the end of *Uncharted* games in general.

Uncharted: The Lost Legacy takes the game engine used for the last outing but substitutes the Drake brothers for Chloe Frazer and Nadine Ross – two unlikely heroines who appeared in fairly minor roles in the second and fourth games respectively.

It's a genius decision to propel them into the limelight as they make for a different tone, regardless of similar graphical and gameplay mechanics to previous games in the run. Frazer is clever, sassy and a very capable treasure hunter, while Ross was one of the main villains in Drake's last adventure, so it's good to find out more about her in very different circumstances.

In gameplay terms, ... The Lost Legacy offers a similar blend of stealth, duck-and-cover gunplay, puzzles and climbing. What's different this time out is that a large part of the game is set on an open-world map, where you can tackle mission objectives and side-quests in an order of your own choosing. Unfortunately, the story mode is not long. We completed it in a little under eight hours.

The title looks absolutely stunning. Not only are PlayStation 4 Pro owners rewarded with dynamic 4K visuals, but both they and standard PS4 players get the most impressive use of HDR we've seen in gaming yet. Explosions and neon lighting are beautifully enhanced for those with compatible displays, providing a true visual treat that you'll use to show off your setup.

There's also a rip-roaring 7.1-channel soundtrack available, with a very nifty menu setting that can be used to shorten or widen the soundstage depending on your environment.

Uncharted: The Lost Legacy might be a short experience, but it is a perfectly formed one. And for the reduced price of £25, it's easily worth every shiny penny.







New Battles Without Honour and Humanity: The Complete Trilogy

Arrow Video → Region B BD & R2 DVD £60



Rather than churn out any more sequels to his five-film Battles Without Honour and Humanity saga (1973-1974), director Kinji Fukasaku crafted an equally enjoyable companion

trilogy of entirely self-contained crime films. This boxset's 2.35:1 Full HD presentations of New Battles Without Honour and Humanity (1974), The Boss's Head (1975) and Last Days of the Boss (1976) are film-like but not quite as sharp as you might hope. Extras include new interviews and a 60-page booklet.



The Fabulous Baron Munchausen

Second Run → All-region BD



Not just the best of the various Baron Munchausen movies, Karel Zeman's 1962 mix of live-action and highly stylised animation (which would heavily influence Terry Gilliam's work in

that arena) is also one of the greatest fantasy films ever made. Your appreciation of the movie will be aided by this fabulous Blu-ray release, the centrepiece of which is a stunning 1080p presentation based on a new 4K restoration. Backing up the film is a wealth of delightful extras, including a documentary about Zeman, a visual essay about the Baron, and a look at the film's special effects techniques.



Lady Macbeth

Altitude → All-region BD



Made on a tiny budget of just £500,000, this compelling British period drama tells the story of a cool and calculating 19th Century femme fatale (Florence Pugh) who refuses

to let the fact that she is trapped in a loveless marriage stop her from getting whatever – and whoever – she desires. From wind-swept Northumberland vistas to sparse interior spaces, this BD delivers an excellent 2.40:1 Full HD encode partnered by a brooding DTS-HD MA 5.1 soundtrack. Informative extras include a commentary and post-screening Q&A.





Full-throttle 4K restoration

John Frankenheimer's action flick looks better than ever on this must-own Blu-ray

→ RONIN

A small group of highly skilled mercenaries are brought together in France by an Irish operative to steal a mysterious briefcase. What follows is a modern action classic of the kind they sadly don't make any more...

Directed by John Frankenheimer and given an extensive script polish by David Mamet (under the pseudonym 'Richard Weisz'), *Ronin* dispenses with any extraneous material in order to drill down on the characters and action. The result is a thrilling, yet surprisingly sombre, throwback to the Euro-crime capers of the 1970s, with the sort of pedigree cast those films could only really dream of.

Then, of course, there's the action. Featuring astonishing, heart-in-mouth sequences of cars tearing around first Nice and then Paris, it's no wonder that *Ronin* is regularly (and rightly) hailed as boasting two of the greatest chases ever committed to celluloid.

But what really becomes apparent from watching *Ronin* again today is that it marked the end of an era. Not only was it Frankenheimer's penultimate film and one of De Niro's last great lead-role performances, *Ronin* is an action flick aimed explicitly at an adult audience – something that Hollywood now has next to no interest in as it keeps pandering to teenagers in the hunt for ever larger box office returns.

Picture: Ronin debuted on Blu-ray back in 2007 with a less-than-impressive MPEG-2 encode that did the film's moody photography very few favours. For this re-release, Arrow has undertaken a new restoration based on a 4K scan of the original 35mm camera negative, with director of photography Robert Fraisse supervising the grading.

Where the older 1080p presentation was a largely inconsistent affair in every regard (from detailing to sharpness, grain levels to colour accuracy), this new release delivers a finely nuanced and entirely authentic 2.35:1 image that never looks anything less than pristine. Impressive.

Audio: While the 2007 Blu-ray may have let itself down when it came to picture quality, it's DTS-HD MA 5.1 soundtrack was another matter altogether. Understandably, Arrow has left this part of the package alone and – despite being 20 years old

- the film's sound design still dazzles when it cuts loose in the big action set-pieces. Chapter

5's ambush and Chapter 9's chase through Paris provide the real standout moments. *Extras:* Another area where Arrow's disc triumphs over the original Fox/MGM Blu-ray, which was barebones. Here, *Ronin* fans get a host of new and archival extras, with highlights including a director's commentary, a brand-new interview with Robert Fraisse, a 1994 episode of *Cinefile* with Quentin Tarantino discussing De Niro's career and

a fairly brutal alternate ending.



Ronin's breathtaking action scenes still pack a real punch



HCC VERDICT

Ronin

→ Arrow Video → Region A/B BD

→£25

WE SAY: A magnificent Blu-ray upgrade for this home cinema favourite. Track it down!

Movie:
Picture:
Audio:
Extras:



Feeling battered and bruised

New villain Negan's arrival brings out the worst in AMC's nihilistic horror series

→ THE WALKING DEAD: THE COMPLETE SEVENTH SEASON

Hit show *The Walking Dead* has never been one to shy away from depicting the horrors of life in a world overrun by the undead. But even so, this latest season finds it plumbing new depths of soul-crushing despair, first with the brutal reveal of just who new antagonist Negan (Jeffrey Dean Morgan) had chosen to introduce to his barbed wire-wrapped baseball bat in the previous season's cliffhanger; and then with a series of episodes devoted almost exclusively to watching Rick (Andrew Lincoln) being repeatedly ground down by Negan's new world order.

Making matters even worse are the first half of the season's extended episodes, which serve only to slow the storytelling to a crawl and do the repetitive nature of those early episodes no favours at all.

Thankfully, the second half of the season starts to turn things around, embracing the stupidity of some of the concepts the show has created (CGI tigers! Mad Max refugees living in a rubbish dump!) and restoring a note of hope to proceedings. Yet the glacial pacing remains a major issue and it's hard not to think that what has been stretched out over 16 episodes could have been better dealt with over a shorter, more satisfying run.

Picture: Outside of a small handful of individual digital shots, *The Walking Dead* is still filmed entirely using Arriflex 416 Super16 cameras. As with the show's previous seasons, this results in a series of excessively grainy 1.78:1-framed 1080p Blu-ray encodes. Detail levels remain pretty strong in



close-ups, but the sheer amount of grain swirling around means that fine textures are less apparent in medium to long shots. Foggy exteriors in the first episode are just downright ugly. For all that, though, this set remains an accurate presentation of the intended look.

Audio: There's less zombie action this season, and that corresponds with an altogether more subdued series of DTS-HD MA 7.1 soundtracks. Still, when things get busy (Episode 9 Chapter 5's zombie horde and Episode 16 Chapter 6's gunfights) the mixes prove themselves more than up to the task.

Extras: As well as cast and crew commentaries on six episodes, this Blu-ray boxset throws in a bonus disc of extras. Here you'll find the 16-part *Inside the Walking Dead* and *The Making of the Walking Dead* behind-the-scenes videos; five further featurettes; a piece about the characters who died this season; and eight deleted scenes.





Dead people walking – well, what did vou expect?

HCC VERDICT

The Walking Dead: The Complete Seventh Season

→ Entertainment One → Region B BD → £45

WESTA Another solid BD boxset, although the rot has finally started to set in on the show itself...

Movie: **
Picture: **
Audio: **
Extras: **

OVERALL

Black Sails: The Final Season

Platform Entertainment → All-region BD



After a third season spent getting all of the pieces in place, this final run of episodes wastes no time in kickstarting

the war for Nassau. What follows is a spectacular and bloody finale to *Black Sails* that continually delights in confounding your expectations. Despite some banding issues, the decision to divide the season's 10 episodes across two Blu-rays doesn't have any serious repercussions when it comes to picture quality. However, none of the 14 behind-the-scenes featurettes offered by the set last longer than three minutes.



Riverdale: Season One

Warner Bros. → R2 DVD



An apparently idyllic small town is rocked when the murdered body of a popular student is discovered

in a local river. Sound familiar? It should – this enjoyably self-aware show isn't scared to wear its debt to *Twin Peaks* on its sleeve as it takes the cast of the wholesome *Archie* comics and drops them into a twisted murder mystery. Denied a BD release in the UK, *Riverdale* hits R2 DVD with anamorphic 1.78:1 transfers that benefit from the show's mist-enshrouded aesthetic, as it helps disguise the lower image resolution.



Prison Break: Season Five

Twentieth Century Fox → Region B BD



Fox's plan to resurrect every defunct TV drama in its vaults (remember 24: Live Another Day?) continues with this

final nine-episode outing for seasoned prison escapees Michael and Lincoln (Wentworth Miller and Dominic Purcell). Wonderfully idiotic as usual, this is a solid farewell to the franchise that improves (somewhat) on 2008's Season 4. Fox's three-disc BD release earns applause for its top-tier 1080p visuals and DTS-HD MA 5.1 sonics, but the paucity of extras (only a single promo featurette is included) disappoints.



Vikings: Season 4 – Volume 2

Twentieth Century Fox → Region B BD



Anybody who knows anything about the story of Viking king Ragnar Lothbrok will know the fate that lies

in store for the character as he returns to England in a riveting second half of a season that is all about closing the door on some stories and opening others to a host of new adventures. As for the Blu-ray itself, this latest three-disc set adheres to the template laid down by previous releases, serving up detailed 1.78:1 Full HD imagery, boisterous DTS-HD MA 5.1 audio and an informative array of bonus material.









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Bringing the '80s back to life

A familiar name from the video rental era returns with HD upgrades of some VHS favourites







→ Vestron Collector's Series – Wave One

The past few years have seen specialist boutique disc labels like 88 Films, Arrow Video and Scream Factory demonstrate that there is a voracious and sizeable audience for 1980s horror on Blu-ray.

Even mini-major Lionsgate has woken up to the opportunities this market presents with its Vestron Collector's Series imprint (named after a video label that will awaken fond memories in anybody who hung around rental stores in the late 1980s). Having launched in the US last year, the Vestron Collector's Series has now made the leap across the Atlantic with an initial wave of four titles...

The Blood Feast-inspired Blood Diner (1987) is an enjoyably gory and unapologetically ludicrous horror-comedy about two murderous brothers building a new patchwork body for an ancient goddess to inhabit.

Anthony Hickox's monster mash-up *Waxwork* (1988) also refuses to take itself too seriously with its tale of a group of students falling foul of a mysterious museum where the waxwork displays have a life of their own. It's just a shame that, unlike the US release, it doesn't come here in a double-pack with *Waxwork II: Lost in Time* (1992), the rights to which presumably still reside with Entertainment in Video in the UK.

Rather less interesting is *C.H.U.D. II: Bud the CHUD* (1989), a name-only sequel that basically throws out everything from the 1984 original in order to do a







From ancient goddesses to vampires and zombies, the horror comes in all shapes and sizes in Lionsgate's creepy quartet

lame zombie comedy. Not even a brief cameo by comedian Rich Hall can enliven this dud.

Finally, Brian Yuzna's *Return of the Living Dead 3* (1993) is an undead version of *Romeo and Juliet*, only here our heroine is a slinky flesh-eating ghoul who discovers that extreme pain helps dull the desire to eat her boyfriend's brains.

Picture: While they won't exactly rock your home cinema world, all four films look pretty smart in HD. Return of the Living Dead 3 is the pick of the bunch, revealing fewer compression artefacts and bolder colour reproduction, while C.H.U.D. II... is the softest of the four AVC encodes. The other two 1080p presentations sit squarely between them.

Audio: Whether its *Blood Diner*'s DTS-HD MA 2.0 dual-mono mix or the DTS-HD MA 2.0 stereo tracks that accompany the other three films, there's nothing to get hugely excited about, sound-wise. What matters here is the accuracy to the source elements – no matter how limited. Curiously, *Waxwork*'s soundtrack is at a much lower volume level than the others.

Extras: Each disc offers up an audio commentary (two in the case of *Return of the Living Dead 3*), plus trailers, stills galleries and either a collection of new interview featurettes or, in the case of *Blood Diner* and *Waxwork*, substantial new retrospective *Making of...* documentaries.

Return of the Living Dead 3 also rustles up storyboards for two sequences, while Waxwork adds an isolated score (Dolby Digital 2.0) cut together with an interview with composer Roger Bellon.

HCC VERDICT

Blood Dine

→ Lionsgate – Vestron Collector's Series → Region B BD → £25 WESAY: A solid HD outing for this utterly bonkers horror-comedy.

Movie:
Picture:
Audio:
Extras:
OVERALL:

HCC VERDICT

C.H.U.D. II: Bud the CHUD

→ Lionsgate – Vestron Collector's Series → Region B BD → £25 Wissay: An okay disc, but as far as the film goes Bud... is a dud.

Movie:
Picture:
Audio:
Extras:
OVERALL:

HCC VERDICT

Return of the Living Dead 3

→ Lionsgate – Vestron Collector's Series → Region B BD → £25 WESAY: Robust visuals and quality extras make this a must for fans.

Movie: **

Picture: **

Audio: **

Extras: **

OVERALL: **

HCC VERDICT

Waxworl

→ Lionsgate — Vestron Collector's Series → Region B BD → £25 WESAY: Another strong package, despite the lack of the sequel.

The Strange Vice of Mrs. Wardh

Shameless Screen Entertainment Region B BD→£16



Sergio Martino's first foray into the *giallo* and his first film to star the smouldering Edwige Fenech, *The Strange*

Vice of Mrs. Wardh (1971) is a slick, kinky thriller that is essential viewing for fans of the genre. While there's still room for improvement, the 2.35:11080p encode is a step up in quality from the label's earlier release of Martino's All the Colours of the Dark. LPCM mono Italian and English soundtracks also hold up better, with no repeat of the echo effect that troubled the previous disc. Interviews and an on-screen 'Fact Track' for the film are included.



The Long Hair of Death

88 Films → Region B BD



Another in the long line of Gothic chillers actress Barbara Steele made in Italy, director Antonio Margheriti's 1964 film

finds her playing the daughter of a witch who returns from the grave to get revenge on her mother's killers. This stylish black-and-white film makes a so-so debut on Blu-ray, with the 1.85:11080p encode retaining a noticeably 'digital' appearance due to some rather zealous filtering that has removed all traces of native film grain (and some fine detailing). The disc also houses a featurette about Margheriti's horror films and the trailer.



Creepozoids

88 Films → Region B BD



Imagine somebody trying to make *Alien* for \$150,000. Now, swap the expensive-looking spaceship for a gloomy

warehouse, throw a giant mutant rat and a gratuitous sexy shower scene into the mix and that's *Creepozoids* in a nutshell. Naturally, this 1987 cheapie isn't anybody's idea of a 'good' film, but for lovers of trash cinema and scream queen Linnea Quigley, there's plenty here to enjoy. This Blu-ray (released under the label's new '88 Vault' imprint) hosts a surprisingly solid 1.78:1 Full HD encode, a choice of lossy stereo and 5.1 sonics, and an enjoyable director's commentary.

The Slayer

Arrow Video → Region B BD & R2 DVD £25



One of the more interesting titles to get caught up in the whole 'Video Nasties' furore here in the UK, this

1981 fright flick may include many of the trappings of a slasher movie, but adds a dash of the supernatural to its story that gives the material a more dreamlike feel. Based on a new 4K scan of the original 35mm camera negative, Arrow's 1.85:1-framed 1080p Blu-ray encode is extremely well resolved, while the LPCM mono audio is crystal-clear. Fan-pleasing bonus features include two chat-tracks and the chance to watch the film with a live audience track followed by a Q&A.



'Get jumping like a real live wire...'

Richard O'Brien's Rocky Horror... sequel carries far more of a charge today than it did in 1981

→ SHOCK TREATMENT: LIMITED EDITION

Making a sequel to *The Rocky Horror Picture Show* (1975) was always going to be a pretty thankless task. Which is no doubt why, for this 1981 follow-up, creator Richard O'Brien went down a completely different route, picking up the story of Brad and Janet (Cliff de Young and Jessica Harper) as they attempt to work out their marriage problems on live TV. Meanwhile, a host of familiar faces from the first film

(including O'Brien, Patricia Quinn, 'Little' Nell Campbell and Charles Grey) return as different characters.

A flop with audiences (those who could actually find it playing somewhere) and critics alike on its original release, *Shock Treatment* now

feels startlingly prescient in the way in which it predicted the rise of 'reality TV' and its approach to celebrity culture. It also doesn't hurt that the film is packed with clever and catchy musical numbers that are (gasp!) arguably better than those of its beloved predecessor.

While it never quite 'sings' in the same way as *The Rocky Horror Picture Show*, it reflects a world we recognise all too clearly today, ensuring that this misunderstood movie is ripe for rediscovery. *Picture:* Arrow hasn't provided much info regarding the provenance of its HD master beyond stating that it was 'remastered at Fox'. Thankfully, the 1.85:1 1080p encode is more than up to the task at hand,



colour palette with accurate black levels.
Detailing is also very good and there's a fine

layer of native grain present throughout. *Audio:* The disc offers two lossless soundtracks – original stereo and a 5.1 remix. For the most part, both sound fairly lively, particularly when it comes to the many musical numbers. However, the 5.1 track suffers from a noticeable audio drop-out around the six-minute mark. As this was apparently true of all previous DVD releases it would appear to be an insurmountable issue inherent to Fox's 5.1 remix. *Extras:* Available in a choice of two different slipcases, this packed release includes two chattracks, a new Q&A with Patricia Quinn, an audio intro by Richard O'Brien, vintage featurettes, fan videos,

art cards, a booklet and the CD soundtrack.





HCC VERDICT

Shock Treatment: Limited Edition

→ Arrow Video → Region B BD → £30

WESAY: A shockingly good hi-def treatment of this overlooked and underrated *Rocky Horror*... sequel.

Movie: ***

Picture: **

Audio: **

Extras: **

OVERALL: **



A tantalising and twisty treat

Nothing is quite what it seems in Park Chan-wook's dizzying period thriller

→ THE HANDMAIDEN: SPECIAL EDITION

Loosely based on Sarah Waters' 2002 Victorian crime novel *Fingersmith* (previously adapted for TV by the BBC in 2005), *The Handmaiden* relocates the story to the Japanese-ruled Korea of the 1930s and transforms it into an outrageously sexy yet curiously heartfelt thriller that is surely director Park Chanwook's most accomplished work to date.

Kim Tae-ri plays Sook-hee, the new handmaiden to mysterious Japanese heiress Lady Hideko (Kim Min-hee). In truth, however, Sook-hee is a former pickpocket in the employ of phoney aristocrat Count Fujiwara (Ha Jung-woo), a charismatic con-man with a plan to marry Lady Hideko before having her locked up in a mental asylum and making off with her fortune. But as Sook-hee's growing attraction to Hideko complicates matters and the story twists one way and then another, you're left wondering just who is seducing who in this smart and unpredictable story of betrayal and passion.

From the wonderful performances and gripping story to its meticulous construction in the edit suite and sumptuous production design, *The Handmaiden* is an astonishing piece of cinema that can somehow transform the act of filing down a tooth into the most sensual scene imaginable. And just like the narrative itself, Park Chan-wook's remarkable film is made up of myriad layers. Peel back all of the violence, deception and sex and at the core of *The Handmaiden* you'll find a touching love story that not only celebrates, but also empowers its richly-drawn female characters.



Picture: This Special Edition Blu-ray serves up two cuts of the film – the 146-minute Theatrical Cut and the 168-minute Extended Version – on two separate BD50 platters. More or less identical in terms of pure image quality, both discs' flawless AVC 2.40:1 Full HD encodes are packed with pixel info and texture, plus lush colours that really show off the film's lavish costumes and production design.

Audio: The Handmaiden's Korean DTS-HD MA 5.1 soundtrack is involving and precise, making very effective of the full soundstage while eschewing largescale dynamic effects. Dialogue and music are perfectly resolved in the mix.

Extras: Accompanying the Theatrical Cut are an hour-long Q&A with Park Chan-wook recorded at the London Film Festival and the trailer. Meanwhile, the Extended Version is joined by a five-minute *Making of...* featurette, footage from Cannes, a cast intro video and another brief chat with the director.





HCC VERDICT

The Handmaiden: Special

- Curzon Artificial Eye
- → Region B BD → £25

WESAY: A stunning Blu-ray package for an outstanding piece of cinema.

Movie:
Picture:
Audio:
Extras:

OVERALL: ★★★★

Who's Afraid of Virginia Woolf?: Premium Collection

Warner Bros. → All-region BD & R2 DVD £15 (HMV exclusive)



The feature film directing debut of Mike 'The Graduate' Nichols, this adaptation of the celebrated stage play turned 50 last year, but its darkly comic depiction of a

disintegrating marriage is just as ferocious and explosive as ever. There's no info given regarding any restoration, but the film has surely had some work done recently as the Blu-ray's 1.75:1 1080p black-and-white is immaculate. There's no shortage of extras either, with the disc housing two chat-tracks, an hourlong documentary about Elizabeth Taylor and plenty more.



My Beautiful Laundrette

BFI→ Region B BD & R2 DVD



Written by Hanif Kureishi and directed by Stephen Frears, this landmark 1985 British comedy-drama about

an interracial gay relationship scrubs up rather well on Blu-ray. Despite some obvious dirt and speckles, the source material is in pretty good shape and the disc's 1.66:1-framed 1080p encode isn't flummoxed by the 16mm filmstock's heavy grain. Likewise, the LPCM mono soundtrack sounds clean and full-bodied. Worthwhile extras include an archival Q&A in place of a chat-track, a couple of documentaries and a short film.



Cat on a Hot Tin Roof: Premium Collection

Warner Bros. → All-region BD & R2 DVD £15 (HMV exclusive)



Like Who's Afraid of Virginia Woolf? before it, the second in this month's double-bill of Elizabeth Taylor

Blu-rays finds the actress playing one half of yet another tempestuous married couple – this time in the sizzling 1958 bigscreen adaptation of the Tennessee Williams play of the same name. Nearly 60 years after it first hit in cinemas, this steamy Southern melodrama arrives on Blu-ray with a very attractive 1.78:1 Full HD presentation of the film's Eastmancolor cinematography. Bonus bits are limited to a chat-track, a featurette and the trailer.



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Arthurian sagas

With King Arthur: Legend of the Sword making its disc debut this month, Team HCC embarks on a perilous guest to discover the 10 best films and TV shows rooted in Arthurian legend...

Monty Python and the Holy Grail

We could argue all day as to whether this or ...Life of Brian is the Python team's crowning cinematic achievement, but why bother? With its killer rabbits, invincible knights, musical interludes and Marxist musings on the peasant/ King relationship, ... Holy Grail is surreal comedy gold, anchored around (as with Life of Brian), Graham Chapman's acting chops.

Get it: 2015 saw Sony Pictures cook up a 40th Anniversary Blu-ray release, only three years after the movie made its belated hi-def debut. Both can still be bought, offering an unfettered HD image that doesn't try to cover up its 35mm origins and remixed DTS-HD 5.1 sonics (plus a dualmono presentation for purists). Plenty of extras, too, with the 40th Anniversary Ed. packing a new interview featurette.





PRINCE VALIANT

Based on the popular comic strip that has been running in US newspapers since 1937, director Henry Hathaway's epic 1954 film ('You see it without glasses in CinemaScope!') stars Robert Wagner as a young Viking prince who aids the knights of Camelot to defeat the evil Black Knight (James Mason). The result is a garish Technicolor swashbuckler that feels tailor-made for Sunday afternoon viewing.

Get it: Pick up Eureka's fairly modest UK Blu-ray (2010) for less than a tenner.



Knightriders

George A. Romero took time out from making movies about brainmunching ghouls in 1981 for this one-of-a-kind tale of medieval knights and motorcycles. Ed Harris features as the leader of a troupe of Renaissance performers who stage jousts on motorbikes, while insisting that they live their lives according to an Arthurian code of conduct - something that doesn't sit well with all of them...

Get it: You can't go wrong with the handsome 1080p encode and enjoyable extras on Arrow Video's Region B 2013 Blu-ray release.



Excalibur

Drawing primarily on Thomas Malory's Morte d'Arthur for its inspiration, John Boorman's erratic 1981 British fantasy flick is basically the *Game of Thrones* of its day, retelling the story of King Arthur through an unrelenting prism of sex and violence. Add in a hefty measure of cosmic psychedelia and you have a film that has to be seen to be believed.

Get it: The recent HMV-exclusive Premium Collection BD is a port of the 2011 US disc in fancy new packaging – a shame, as the film could really use some more TLC.



FIRST KNIGHT

Sean Connery as King Arthur is an inspired bit of casting in this fairly big-budget Hollywood effort from 1996, although Richard Gere doesn't look as comfortable playing a roguish Lancelot with beautiful hair. First Knight offers plenty of energetic swordplay, but no sign of Merlin.

Get it: Sony Pictures built upon previous LaserDisc and DVD releases with a Blu-ray release in 2008 (alongside a new Special Edition DVD) that includes a chat track from an Arthurian historian among its bonus bits.



Doctor Who: Battlefield

First broadcast in September 1989, this four-part story pits the Seventh Doctor (Sylvester McCoy) and Ace (Sophie Aldred) against the sorceress Morgaine (Jean Marsh) and her knights, who have journeyed from a parallel universe in search of the sword Excalibur. While not the best of the McCoy era's serials, *Battlefield* is much better than its reputation suggests and serves as a fine send-off for Nicholas Courtney's Brigadier.

Get it: The R2 DVD includes the original episodic version as well as a souped-up movie re-edit. It's also packed with extras.



Lancelot du Lac

Favouring a downbeat feel over magic and fantasy, writer-director Robert Bresson's 1974 French take on Lancelot and Guinevere's love affair strips the story back to the bone in order to get to grips with the human anguish that lies at the heart of it. Minimalist but strangely captivating, it makes for an interesting change of pace for your movie room.

Get it: As with many of Bresson's films, *Lancelot du Lac* is currently unavailable anywhere on Blu-ray. A barebones R2 DVD was issued by Artificial Eye in 2008.



CAMELOT

This spirited 1967 adaptation of the hit Broadway musical gives Richard Harris the chance to flex his vocal chords as King Arthur, while Franco Nero makes for an unlikely (and, when it comes to the musical numbers, obviously dubbed) Lancelot. Sappy and over-long? Sure. But the songs are great and it looks sensational.

Get it: It may be celebrating its 50th anniversary this year, but we're still no closer to a UK BD release of *Camelot*. As such, fans should import the 2012 all-region US Blu-ray digibook, which comes bundled with a CD featuring four songs from the film.



THE SWORD AND THE STONE

Based on the first part of T.H. White's *The Once & Future King* tetralogy, Disney's *The Sword in the Stone* (1963) is a coming-ofage story following Merlin as he attempts to teach the young orphan Arthur (aka Wart) what he needs to become King.

Get it: Disney really dropped the ball with its Blu-ray release of *The Sword in the Stone*, serving up an HD master that has been subjected to so much digital noise reduction that it negates all detail and leaves the film looking like a blurry mess. You're best off sticking with the DVD.



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Tech explosion Our pick of the hardware and gossip from IFA 2017
Listen up! Hi-res audio explained
Close Encounters... Spielberg sci-fi classic makes its Ultra HD debut

→ **REVIEWS**



CONTENTS SUBJECT TO CHANGE – BUT ONLY FOR THE BETTER





NOW IN THEIR 35th year, the annual awards from the European Imaging and Sound Association (EISA) showcase the most desirable hardware around. While EISA's scope includes hi-fi, photography, mobile technology and in-car audio, the categories featured here are the selections of the Home Theatre Audio and Home Theatre Video groups, of which Home Cinema Choice is a member alongside specialist AV magazines from

France, Germany, Spain, Sweden and beyond. These awards (covering everything from home cinema subwoofers and Dolby Atmos speakers to premium 4K TVs and affordable Blu-ray players) are chosen after a lengthy judging process, during which member magazines get together and whittle down a shortlist. Nominated products can be considered the cream of the electronics crop...

EISA OLED TV 2017-2018

LG OLED65E7

LG's OLED technology gives viewers a superb contrast with absolute blacks and bright highlights, plus vibrant colours that don't diminish at wide viewing angles, yet the OLED65E7 boosts performance in key areas over previous models - near-black detailing has been improved, and peak luminance increased. The result is a screen suited to 4K HDR images from Blu-ray or streaming services, while standard dynamic range content can gain extra punch via LG's HDR Effect upscaling. HDR format support is wide-ranging - Dolby Vision, HDR 10 and HLG are all catered for. The TV's super-thin design, Dolby Atmoscompatible speaker system and slick user interface all contribute to making this our winner in the premium OLED category.





EISA UNIVERSAL ULTRA HD BLU-RAY PLAYER 2017-2018

OPPO UDP-203

OPPO's first disc player since its BDP-103D was worth the wait. The UDP-203 adds Ultra HD Blu-ray and HDR to its universal ethos, making this a player that's unrivalled when it comes to format support. Image quality (including from Dolby Vision titles) is peerless, matched to user control over bit-depth, chroma sampling and HDR-to-SDR conversion. When it comes to audio, the UDP-203 partners its SACD/DVD-Audio talents with networked hi-res file compatibility, multichannel analogue outputs and 32-bit AKM DAC. Music collections are in safe hands - this player sounds clean, crisp and precise. Class-leading build quality and streamlined menus sweeten the deal. A remarkable 4K debut.





EISA SMART TV 2017-2018

SAMSUNG QE55Q7F

Samsung continues to push the boundaries when it comes to TV design and user interaction - the QE55Q7F is smart in many ways. Inputs are housed on the external One Connect box, linked to the slim-framed TV via a single near-invisible cable that allows for a tidy installation. Elegant stand options and sleek back panel underline the attractive design. Operating this TV is a pleasure. Voice control via Samsung's remote is precise and reliable, while the two-tier smart user interface makes navigating its multimedia capabilities and huge number of content apps effortless. And with the TV's 4K QLED display (based on Quantum Dot technology), exceptionally wide colour range and peak brightness, the QE55Q7F is smart when it comes to image quality too...





EISA HOME THEATRE TV 2017-2018

SONY KD-65ZD9

Sony's 4K flagship delivers an outstanding home theatre experience, with excellent colour reproduction and best-in-class contrast, plus the option of 3D playback and support of all major HDR formats (including a scheduled upgrade for Dolby Vision). Key to its stunning picture from Blu-ray and Ultra HD sources – even in a bright room – is Sony's bespoke full-array LED local dimming technology – Backlight Master Drive. Motion processing and upscaling, driven by the company's powerful X1 Extreme chipset, are excellent. The KD-65ZD9 is a premium home theatre display with the performance power to match.





EISA LCD TV 2017-2018

LG 55SJ850V

LG's mid-range 55in LED-lit LCD TV is a superior all-rounder, matching its excellent, user-friendly webOS 3.5 interface and Dolby Vision/HDR 10/HLG HDR playback to a colour-rich and bright picture performance. LG's new Nano Cell 4K panel technology is employed to improve colour finesse, which is maintained (as well as contrast) when viewing off-axis — from TV dramas and sports to Ultra HD Blu-ray movies, this TV shines. Audio from the Harman/Kardon designed 2.2-channel speaker array is clean and punchy, the TV's design is smart and discreet, and its multimedia talents are extensive. This is a fine addition to LG's Super UHD TV lineup.

EISA HOME THEATRE SPEAKER SYSTEM 2017-2018

FOCAL SIB EVO

If you thought Focal's Sib & Cub series was the height of compact style, along comes the Sib Evo to shake things up and introduce a new dimension of performance. With a revamped design that makes its predecessor seem pedestrian in comparison, plus Dolby Atmos and DTS:X 3D audio via up-firing drivers, this is a slick speaker package where sound really does surround the listener, even from above. Tight, rhythmic bass from the discrete subwoofer joins the rich midrange and detailed high-frequencies — it's astonishing to believe that such a mighty sound emanates from such a tiny footprint. This is a superb addition to Focal's range.



EISA BEST BUY OLED TV 2017-2018

PHILIPS 55POS9002

For its second-generation OLED TV, Philips introduces its brand-new P5 picture engine for more efficient processing, yet still targets an affordable price point that ensures it stands out in an expanding OLED market. Excellent picture quality from this 55in set excites not only through rich colours, fine details and deep blacks, but also with motion sharpness. Users are granted full access to the 55POS9002's extensive picture controls, allowing adjustment to suit personal taste. The sense of immersion with any source is heightened via Philips' unique Ambilight illumination technology. Boasting Android TV and a low-latency game mode, this is wellfeatured 4K HDR flatscreen that can be the focal point of any setup.





EISA HOME THEATRE HIGH-END 2017-2018

DALI PHANTOM S SERIES

Phantom by name, Phantom by nature! DALI's high-end in-wall system is the ideal setup for home cinema enthusiasts who like their speakers to be heard but not seen. The company has packaged its sonic knowhow into a series of discrete models to deliver a solid, detailed soundstage every bit as immersive as that developed by regular loudspeakers. With its four drivers, including a Hybrid Tweeter module and two additional passive radiators for extended bass, the PHANTOM S-280 sits at the heart of the system, combining with the smaller S-180 and S-80 to provide a premium cinema soundstage that must be heard to be believed.





EISA HOME THEATRE RECEIVER 2017-2018

YAMAHA RX-V483

Don't be fooled by its affordable price – this AV receiver is fully loaded when it comes to features. Thrilling 5.1-channel surround sound with Dolby TrueHD and DTS-HD Master Audio compatibility is joined by 4K passthrough (including Dolby Vision and HDR 10) plus upscaling of SD video to HD and Ultra HD over HDMI. Bluetooth is on hand for wireless streaming, while Yamaha's simple-to-use MusicCast technology lets the receiver become the central hub of a multiroom setup. With its smart design, solid construction and Cinema DSP 3D sound effects bringing the marvels of the multiplex to your viewing room, the RX-V483 is an impressive all-rounder.







EISA HOME THEATRE SOLUTION 2017-2018

DENON HEOS AVR

With its HEOS AVR, Denon reimagines the traditional home cinema receiver for the wireless, multiroom generation by allowing cable-free HEOS speakers to be used for the rear channels and subwoofer. Add in the uncluttered front panel and slim chassis, plus extensive connectivity for Ultra HD sources, and you get a receiver that can grace any modern living room. Powerful five-channel Class-D amplification breathes life into Dolby TrueHD and DTS-HD Master Audio mixes, and the HEOS AVR plays nice with hi-res audio, too, streaming up to DSD128 wirelessly or via USB. Integration into a wider HEOS setup, and foolproof setup and operation, are the icing on the cake.



EISA HOME THEATRE SUBWOOFER 2017-2018

SVS PB16-ULTRA

Summing up what makes this subwoofer such an impressive performer requires just two words: size and power. Whether it's the huge cabinet (with three mighty high-flow ports), the monstrous 16in driver or the 1.5kW Class-D amplifier, nothing about this SVS woofer is shy or retiring. Yet with movie soundmixes or music, it matches its room-filling presence with poise, control and exquisite lows. Setup is aided by onboard parametric EQ, with smartphone app operation making access and user adjustment an absolute breeze. A concrete fist inside a velvet glove, the PB16-Ultra is a subwoofer fit for the finest of home theatres.





EISA TV AUDIO UPGRADE 2017-2018

SONOS PLAYBASE

Once again Sonos has managed to replicate the same no-nonsense approach to sonics that has made its multiroom speakers such a roaring success. A sleek, sophisticated design is combined with an enthralling performance from three tweeters, six mid/bass drivers and integrated woofer to ensure that dull, lifeless TV sound becomes a thing of the past. Simple plug-and-play operation means that even AV newcomers will have the PLAYBASE up-andrunning in a matter of minutes, while Wi-Fi and Ethernet connectivity – plus Sonos' superior app – are on hand to provide access to a world of streaming music services.



EISA Best AWARD Product 2017-2018 HOME THEATRE PROJECTOR

EISA HOME THEATRE PROJECTOR 2017-2018

EPSON EH-TW9300W

This successor to the 2014/15 EISA-award winning EH-TW9200 builds upon that model's superior setup flexibility while embracing new formats and features. Epson's 4K Enhancement pixel-shifting technology upscales incoming sources for greater sharpness. Ultra HD Blu-ray content (with HDR) is supported via the projector's HDCP 2.2-enabled HDMI input. Image quality showcases excellent detail and colour vibrancy, aided by impressive brightness and black levels, leading to an immersive largescreen experience. A 2.1x motorised zoom/focus, wide-ranging lens shift options and wireless connection make the EH-TW9300W an easy model to install in a home theatre or living room.

EISA BEST BUY ULTRA HD BLU-RAY PLAYER 2017-2018

Epson EH-TW9300W

PANASONIC DMP-UB300/UB400 Series

Panasonic has lowered the entry point for Ultra HD Blu-ray with its well-priced DMP-UB300 and DMP-UB400 series. Compact designs, these players can find space in any setup, but remain capable of crowd-pleasing visuals. Inside, Panasonic's 4K High Precision Chroma Processor is employed to fine-tune imagery, while picture adjustments let users match the performance to the talents of their 4K TV. The DMP-UB300/UB400 Series double as network media players, too, supporting hi-res music playback (including DSD and 192kHz/ 24-bit FLAC), as well as video-on-demand via their app portals. These are an excellent choice for those seeking an affordable Ultra HD upgrade.





The EISA Awards 2017/2018 from Hi-Fi, Photography, Mobile and In-Car Electronics

Hi-Fi



EISA BEST VALUE LOUDSPEAKER 2017-2018

DALI SPEKTOR 6

EISA WIRELESS LOUDSPEAKER 2017-2018
KEF LS50 WIRELESS

EISA BOOKSHELF LOUDSPEAKER 2017-2018

DYNAUDIO CONTOUR 20

EISA FLOORSTANDING LOUDSPEAKER 2017-2018 Q ACOUSTICS CONCEPT 500

EISA HEADPHONES 2017-2018

DENON AH-D7200

EISA DAC/HEADPHONE AMPLIFIER 2017-2018 PRO-JECT PRE BOX S2 DIGITAL

EISA BEST VALUE TURNTABLE 2017-2018
PRO-JECT ESSENTIAL III FLEXI-RANGE

EISA HIGH-END TURNTABLE 2017-2018
ELAC MIRACORD 90

EISA INTEGRATED AMPLIFIER 2017-2018 **HEGEL RÖST**

EISA BEST VALUE AMPLIFIER 2017-2018
NAD C 338

EISA HIGH-END STEREO SYSTEM 2017-2018
MARANTZ SA-10 & PM-10

EISA HI-FI INNOVATION 2017-2018

DEVIALET GOLD PHANTOM

EISA MULTIROOM NETWORK PLAYER 2017-2018 YAMAHA WXC-50

EISA PORTABLE DAC/HEADPHONE AMPLIFIER 2017-2018 (Combined award with Mobile Devices Expert Group) RHA DACAMP L1

Mobile



EISA BEST SMARTPHONE 2017-2018
SAMSUNG GALAXY S8/S8+

EISA CONSUMER SMARTPHONE 2017-2018 HONOR 8 PRO

EISA BEST BUY SMARTPHONE 2017-2018
NOA ELEMENT HIOLE

EISA MOBILE HEADPHONES 2017-2018

JBL EVEREST ELITE 750NC

EISA MOBILE SPEAKER 2017-2018

JBL BOOMBOX

EISA WIRELESS IN-EAR HEADPHONES 2017-2018 SENNHEISER MOMENTUM IN-EAR WIRELESS

EISA WEARABLE DEVICE 2017-2018
HUAWEI WATCH 2

EISA MOBILE AUDIO PLAYER 2017-2018
FIIO X5 3RD GEN

EISA SMARTPHONE CAMERA 2017-2018 (Combined award with Photo Expert Group) HUAWEI P10

Photography



EISA PROFESSIONAL DSLR CAMERA 2017-2018 CANON EOS 5D MARK IV

EISA CONSUMER DSLR CAMERA 2017-2018
CANON EOS 77D

EISA PROSUMER DSLR CAMERA 2017-2018 NIKON D7500

EISA PROFESSIONAL DSLR CAMERA 2017-2018 CANON EOS 5D MARK IV

EISA CONSUMER COMPACT SYSTEM CAMERA 2017-2018 FUJIFILM X-T20

EISA PROSUMER COMPACT SYSTEM CAMERA 2017-2018 SONY a6500

EISA CAMERA 2017-2018 SONY a9

EISA COMPACT CAMERA 2017-2018 SONY RX100 V

EISA SUPERZOOM CAMERA 2017-2018 SONY RX10 III

EISA PHOTO & VIDEO CAMERA 2017-2018
PANASONIC LUMIX DC-GH5

EISA INSTANT CAMERA 2017-2018
FUJIFILM INSTAX SQUARE SQ10

EISA DSLR LENS 2017-2018 SIGMA 135MM F1.8 DG HSM I ART

EISA DSLR ZOOM LENS 2017-2018
TAMRON SP 150-600MM F5-6.3 DI VC
USD G2

EISA PROFESSIONAL DSLR LENS 2017-2018 CANON EF 16-35MM F2.8L III USM

EISA COMPACT SYSTEM CAMERA LENS 2017-2018

SONY FE 100MM F2.8 STF GM OSS

EISA PROFESSIONAL COMPACT SYSTEM CAMERA LENS 2017-2018 SONY FE 70-200MM F2.8 GM OSS

EISA COMPACT SYSTEM CAMERA ZOOM LENS 2017-2018 OLYMPUS M.ZUIKO DIGITAL ED 12-100MM F4.0 IS PRO

EISA PHOTO INNOVATION 2017-2018
TAMRON 18-400MM F3.5-6.3 DI II VC HLD

EISA PHOTO DISPLAY 2017-2018
EIZO COLOREDGE CG2730

In-Car Electronics



EISA IN-CAR HEAD-UNIT 2017-2018
KENWOOD DMX7017DABS

EISA IN-CAR HD PLAYER 2017-2018
CLARION NX807E

EISA IN-CAR SMART UPGRADE 2017-2018

MOSCONI GLADEN RC-CAN

EISA IN-CAR SUBWOOFER 2017-2018
GLADEN PRO 10

EISA IN-CAR ACTIVE SUBWOOFER 2017-2018 PIONEER TS-WX70DA

EISA IN-CAR PROCESSOR 2017-2018 **HELIX DSP.2**

EISA IN-CAR AMPLIFIER 2017-2018 MOSCONI GLADEN PRO 5|30

EISA IN-CAR INTEGRATION 2017-2018
HERTZ H8 DSP

EISA IN-CAR SPEAKER SYSTEM 2017-2018 VIBE AUDIO CVEN62C-V4



For more information on EISA visit: www.eisa.eu



AV Avenger

While promising convenience and an end to buying batteries by the dozen, the universal remote control, says **Steve May**, is nothing but a dead parrot

WHEN THE CLASH sang about 'Complete Control' I doubt they had their AV stack in mind. But managing a teetering tower of tech is no small matter. Well, it isn't for me – I now wrestle with so many controllers they warrant their own place on the sofa. Traditional IR pointers, Bluetooth touchpads, over-sized doofers and mini wands, I juggle them all like a veritable clicker-Jedi.

It wasn't meant to be this way. Universal remotes promised salvation, but I've never really got on with them. They sell simplicity, but actually overcomplicate everything.

If I want to find out what my TV is doing when it automatically swaps picture modes because it's detected HDR, a universal zapper probably isn't going to cut it. In fact, every time I've tried a universal remote to save me from the six remotes on my lap, I just end up with seven remotes.

Oh, sure, I can hear RTI, URC and Logitech Harmony devotees declaring their wands are life-savers, but I'm not in need of rescuing, especially as trying to educate family members about functional multiplicity has never gone well. I know my way around my telly controller in the dark, and my kids know that the Amazon remote is the little black thing that's always lost down the side of cushions. I've even developed a growing affection for the sensual delights of the Sky Q Touch.

So I don't mind admitting that when I kick back at night in the AV Avenger cave, I rather like the ritual of surrounding myself with handsets. For a few hours at least, I am the master of all I can zap.

Macro mania

This will be a disappointment to futurists. Home automation is predicated on graphically rich touchpads that intuitively know what you want to do.

The likes of Control4, Crestron, AMX and Savant all offer simplified control, but while this is fine for those that can live with macros, they're a frustration for enthusiasts who spend an inordinate amount of time delving through deep menus.

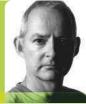
That said, I confess to once having an extended relationship with a Philips Pronto. The original Pronto was the proto-universal controller. It had a graphical LCD screen when such things seemed but one step removed from a Tricorder. It could control upwards of 50 devices (I had about three at the time) and deploy macros consisting of hundreds of commands.

Using the Pronto involved creating master files of codes with arcane PC software, called ProntoEdit. A thing of devilish complexity, I persevered with it for some time before common sense prevailed. Even so, Pronto opened the floodgates for every universal controller to come. And they still have a fanbase, as I discovered when I recently suggested on Twitter they'd gone the way of the Norwegian Blue.

I reckon voice control will probably put paid to universal remotes once and for all. While you may well be able to replicate it if you spend enough money, why bother? The user experience is almost certainly going to be better with the default controller. Just look at how accurate voice search is on both the Sky Q remote and Amazon Fire devices.

My first VCR, the Sony C7, offered an infra-red controller when wired units were fresh in the memory. It was comically chunky and didn't offer more than the basics, but I still relished cradling it every evening. I might seek it out in the loft and give it a click for old time's sake. Another zapper on the sofa isn't going to do any harm...

Do you (or did you) use a universal remote control? Let us know: email letters@homecinemachoice.com Steve May once taped his remotes to the floor and used his big toe to control his AV kit. This experiment lasted less than 30 seconds





The new Q Series hi-fi speakers

The eighth iteration of this successful range continues to be centred on KEF's legendary Uni-Q driver array, and is now enhanced with a new system design, beefier low-frequency drivers and a new damped tweeter loading tube. The result is superior bass performance and an even more detailed natural sound. Listen for yourself and experience pleasure in high resolution.





29th SEPT – 1st OCT 2017









The multi-award-winning UDP-203



OPPO's first disc player since its BDP-103D was worth the wait. The UDP-203 adds Ultra HD Blu-ray and HDR to its universal ethos, making this a player that's unrivalled when it comes to format support. Image quality (including from Dolby Vision titles) is peerless, matched to user control over bit-depth, chroma sampling and HDR-to-SDR conversion. When it comes to audio, the UDP-203 partners its SACD/DVD-Audio talents with networked hi-res file compatibility, multichannel analogue outputs and 32-bit AKM DAC. Music collections are in safe hands – this player sounds clean, crisp and precise. Class-leading build quality and streamlined menus sweeten the deal. A remarkable 4K debut.















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